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MEDICAL TIMES

EDITED BY

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GANGRENE OF THE ESOPHAGUS.

By WM. WATT KERR, M. D., Assistant Visiting Physician City and County Hospital, San Francisco, Cal.

During the month of May, 1887, J. K.——, a laborer, was admitted to D ward of the City and County Hospital, complaining of weakness, shortness of breath, and difficulty in swallowing. The history of the case showed that the patient had been addicted to the excessive use of alcohol for many years. His breathing had distressed him for about two years, but to this he had paid little attention until a short time before his admission into the hospital, when the difficulty in swallowing began to trouble him.

On examination the patient was seen to be thin and poorly nourished; cyanosis was present but not in any marked degree. In the epigastrium well marked and diffuse pulsation was visible, but palpation and percussion failed to define any tumor. The whole area of cardiac dulness was increased, and a regurgitant murmur was distinctly audible both in the aortic and mitral areas. The epigastric pulsation, together with the difficulty in swallowing, suggested the possibility of aneurism of the descending aorta; but this was rendered very doubtful by the inability to define a tumor, and also by the fact that the sensations of the patient placed the seat of esophageal obstruction at a higher level than that which would correspond to the pulsating area. A small esophageal probang was introduced, by means of which the obstruction was detected and overcome with comparative ease.

The diagnosis arrived at was aortic and mitral incompetence, with cardiac dilatation. The obstruction of the esophagus was regarded as something quite distinct from the heart disease, and believed to be due to simple stricture from some injury to the tissues, probably by means of some corrosive poison, as it is not an uncommon thing for chronic inebriates to substitute mineral acids for alcoholic liquors when the state of their finances renders it impossible to obtain the latter. The treatment consisted in absolute rest in bed, the careful administration of digitalis, nourishing

chiefly by means of liquid food, and the passage of a probang twice in the week for the purpose of dilating the stricture.

Under these conditions the patient made some slight improvement, the attacks of dyspnea were less frequent than formerly, although they occurred two or three times per week, and occasionally were so severe as to present all the appearance of impending death; but the esophageal obstruction remain unchanged, in fact the passage of the bougie did not produce even the most temporary improvement, and therefore its cause remained a matter of doubt. After he had been an inmate of the hospital for about three weeks the patient died.

An autopsy was made by the interne physician, Dr. B. A. Plant, who found all the chambers of the heart very much dilated and their walls thinned; the aortic and mitral valves were incompetent, but there were no signs of aneurism. The esophagus was entirely free from stricture in its walls, but that portion lying between the pericardium and the vertebræ was softened and gangreneous. The changes in other organs did not present anything of special interest bearing upon the case, there being only those which are most frequently met with as a result of chronic alcoholism.

Was the gangrene caused by pressure on the esophagus? In the absence of any other cause, and in consideration that the gangrene was limited to that part of the esophagus underlying the heart while the cervical portion was healthy, we are inclined to answer in the affirmative; nevertheless, the fact that the pressure must have been very much relieved with every contraction of the heart, and the frequency with which we have met cases of extensive cardiac dilatation, without ever seeing one in which deglutition was rendered difficult, would make us fain discover some other cause than that which was the only one here apparent.

PROLONGED SURVIVAL AFTER EXTENSIVE FRACTURE OF THE PELVIS.

By S. D. Howard, M.D., Elk Grove, Cal.

On October 31st, 1887, at 9 A. M., T. W.—— was working in a gravel pit near this town, when the bank, which rose above him about twenty feet, caved. A mass of earth, which must have weighed about 300 pounds, struck him over the lumbar and gluteal regions, throwing him against the hub of a wagon wheel which impinged on the pelvis in front. He was taken out by his companions and brought to town in a cart.

When seen half an hour later he was suffering from shock and complaining of intense pain in the right iliac region, any movement of the parts being attended with agonizing pain. An extended examination was impossible; I could, however, feel distinct crepitation on the right side, and concluded that there was a fracture of the ilium. Patient was placed under the influence of opiates and rested comfortably. During the afternoon, as he was unable to pass water, I introduced a No. 6 silver catheter. The instrument apparently entered the bladder without difficulty, but no urine escaped; blood, both fluid and in clots, came away quite freely. The bladder did not appear to be distended, and no further attempt was made until late in the evening, and then with precisely the same result. The following morning the bladder was distended, and, though anxious to make water, patient did not appear to suffer greatly from this cause. I again introduced the catheter, but failed to enter the bladder. Blood came through the instrument, and during the night some had flowed from the penis. I then believed that the right kidney had been injured, and that the bladder was full of blood.

At noon that day Dr. J. H. Parkinson saw the case with me. Patient was fully anesthetized (on the previous occasions I had given chloroform to partial insensibility), and examined. The bladder was distended, reaching almost to the umbilicus; the abdomen on either side was resonant. Repeated attempts with various instruments completely failed to enter the bladder. It was noticed when using a large silver instrument that the point had a tendency to turn to the right when in the neighborhood of the prostatic urethra. On this occasion, also, blood escaped freely from the passage. The previous diagnosis was confirmed, but as it was evident that the urethra had been lacerated, and that operative treatment was imperative, we decided to move him to the County Hospital for better facilities. He was again chloroformed and carried on his mattress to a spring wagon, bearing the journey to the hospital well.

On admission, Dr. White succeeded, without much difficulty, in introducing a catheter; but though several sizes were used large clots of blood choked the instruments so that little urine was obtained. It was decided to perform a perineal section, and the patient was placed on the table and anesthetized. The patient being in the lithotomy position, a large, double current catheter was introduced, when the urine flowed freely. This rendered the operation unnecessary and the instrument was tied in, the bladder hav in

been first thoroughly irrigated. A careful examination then showed that there was a fracture of the right pubic bone, crepitus being distinctly obtained with one finger in the rectum. It was also apparent that there was extensive laceration of the urethra, implicating the wall of the bladder. The catheter was kept in position for four days, antiseptic irrigations being used twice daily. After this the instrument was withdrawn, the urine passing freely by the urethra. The injections were continued—solution of corrosive sublimate 1:3000 at first, and, later, solution of carbolic acid 1:100 being employed. Mucilaginous drinks were given freely with quinine and opium, the latter very freely. A broad band of adhesive plaster was passed round the pelvis and over it a muslin bandage. During micturition, and when the bladder was irrigated, clots of blood, small shreds and muco-pus passed away.

Nov. 10th.—Patient had a chill, and on the following day there was edema of the thigh.

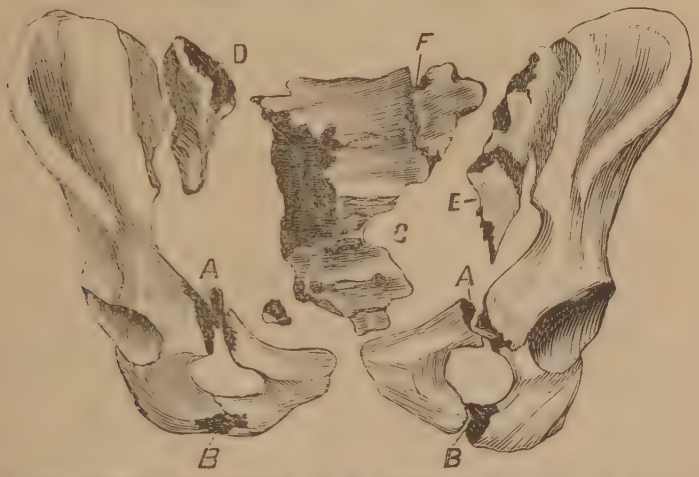
Nov. 12th.—The edema was more marked; distinct fluctuation below Poupart's ligament and extending through the tissues of the thigh was apparent. To relieve tension two incisions were made on the outer side of the thigh, nothing but serum escaping.

Nov. 13th.—Fourteen days after receipt of injury, the patient died, evidently of septicemia.*

Autopsy—Made November 14th, by Dr. White. Body emaciated; marked edema of the right lower extremity; two incisions on external side of thigh. On opening the abdomen there was evidence of general peritonitis; the omentum was congested; a large ecchymosis, representing blood, effused behind the peritoneum, extending completely across the posterior wall. The descending colon, throughout its entire length and including the rectum, appeared to have been badly bruised. The inferior margin of the liver had the same appearance; also the right ureter. The right kidney was deeply congested, but uninjured, and the urine in its pelvis and ureter was clear. The left kidney was intact. On prolonging the incision down to the pubis, separation of the symphysis was found to the extent of one inch. Extending the incision outwards to examine the femoral canal on the right side, a comminuted fracture of the transverse ramus of the pubic bone was exposed. The bone was bare, one of the fragments projecting into the bladder. The anterior and superior wall of the bladder was absent, its place being supplied by the adjacent tissue; the viscus

*I am indebted to Dr. White for these facts, as well as for the notes of the autopsy.

contained a small quanty of grumous matter, some of which could be identified as fibrin; the walls were covered with black tenacious mucous, the parts having a greyish-black appearance. There was a free communication through the femoral canal, between the bladder and a cavity in the anterior and internal aspect of the thigh, extending downwards for about six inches; this contained urine, unhealthy pus and tissue *débris*. An examination of the perineum



A A—Fractures of pubic bones. B B—Fractures of ischia. C—Fracture of third sacral vertebra, showing separation of posterior laminæ. D—Fracture of sacrum, right side. E F—Fragments on right side. The fractures have been separated to show the injuries more plainly.

and urethra showed that the membranous and prostatic portions were absent, being replaced by a cavity communicating with the bladder, and also with the cavity in the thigh, allowing a sound introduced *per urethram* to pass readily into the femoral canal. Further examination revealed the fact that there was a comminuted fracture of the right ischium at its junction with the ilium; symmetrical fractures of the left pubis and ischium, also comminuted; and a fracture of the sacrum on each side, close to the sacro-iliac synchondrosis. There was no attempt at repair in any of these fractures. The parts were subsequently removed, and, in the process of cleaning, it was discovered that the third sacral vertebra was fractured through its body, and that a vertical fracture completely separated the laminæ and spinous processes of the first, second and third vertebræ from their bodies. These conditions are well shown in the above illustration.

MEMORANDA.

A CASE OF SYPHILITIC AMENORRHEA.

Mrs. ——, 40 years of age, acquired syphilis, presumably from her husband, seven years ago. An abundant and multiform syphiloderm received appropriate treatment at the hands of one of the leading physicians of Sacramento. The patient then visited the Springs, and later "boxed the compass" of local medical talent. I saw her for the first time October 13, 1886. She was then suffering from somnolence, mental hebetude approaching imbecility, difficult deglutition and phonation, right hemiparesis and amenorrhea of fourteen months' standing.

Diagnosis: Cerebral syphilis, with syphilitic amenorrhea. I ordered the following:

℞—Sodii Iodidi, gm. 30
Syr. Fer. Iodidi,
Syr. Limonis, aa. 50
M. Sig.—Teaspoonful in water every three hours.

Improvement in the nervous symptoms was manifest by October 23d, and continued without interruption. On December 1st very slight paresis remained, and on January 18, 1887, the patient menstruated for the first time in seventeen months.

February 25, 1887: Patient did not menstruate as she expected on the 18th. She has uncomfortable sensations in the nipples and fears she is pregnant; otherwise doing well.

March 1st: To her great mental relief patient began menstruating to-day—eleven days late. Subsequently she menstruated April 15th, May 19th, June 28th, and August 10th.

This case, and other cases of amenorrhea dependent on vitiated or impaired nutrition, give countenance to the theory of menstruation recently advanced by Lowenthal.—*Vide* TIMES, 1887, page 8.

REPORTS FROM THE HOSPITALS AND ASYLUMS OF THE PACIFIC COAST

SOUTHERN PACIFIC COMPANY'S HOSPITAL,

Sacramento, Cal.

UNDER THE CARE OF T. W. HUNTINGTON, M. D.

[Reported by T. OLMSTED, M. D.]

Three Cases of Burn, treated with Iodoform and Subnitrate of Bismuth.

Case I.—C. S——, æt. 27, cabinet maker, admitted to the Hospital Nov. 25th, 1887. Upon arising in the morning, some netting

covering the bed, coming in contact with a lamp, was ignited, and the patient, in endeavoring to extinguish the flames, sustained severe burns, of the second degree, of both hands and wrists. That of the left hand was the more extensive, the epiderm of the dorsum of the wrist and hand, extending to the ends of the fingers, being raised in one immense blister. The hands had been dressed with Carron oil. These dressings were removed, the blisters punctured and contents evacuated, the loose skin cut away, the raw surface sprinkled with iodoform and bismuth, and then covered with antiseptic gauze. This dressing was repeated upon Nov. 27th and 30th, and Dec. 5th, 10th (at which time the right hand was found to be healed), and 14th, with marked improvement following each dressing. Upon removal of the last dressing the left hand was also practically well.

Case II.—P. B——, æt. 25, on Nov. 5th, 1887, sustained extensive burns of the posterior surfaces of both thighs, extending from the gluteal folds to the middle of the popliteal spaces. These burns, partly of the second and partly of the third degree, were produced by a column of superheated steam. They were thoroughly dusted with iodoform and bismuth, and then carefully covered with antiseptic gauze. This dressing was renewed every third day. Improvement was rapid and continuous. The last dressing was removed November 25th, when the burns were found perfectly healed.

Case III.—W. H——, blacksmith, æt. 47, was admitted to the Hospital November 28, 1887. On the day previous he had received an extensive burn, from a jet of steam, of the anterior and external surfaces of the right leg, extending over the middle, third and the lower portion of the upper third. This burn was partly of the second and partly of the third degree. It had been put up in a starch dressing, which was removed on admission. The burn was thoroughly washed with an antiseptic solution and the iodoform and bismuth dressing applied. Redressed December 1st, 8th and 12th, each time showing marked improvement. The case is still under treatment.

In these cases it is worthy of note that pain was never severe, being greatest during the first 12 hours after dressing. Also that there was absolutely no odor or interruption in the healing process, but rapid recovery without extension of the morbid process to subjacent tissues.

CITY AND COUNTY HOSPITAL.

San Francisco, Cal.

UNDER THE CARE OF J. O. HIRSCHFELDER, M. D.

[Reported by E. E. KELLY, M.D. House Physician.]

Pilocarpine in a Case of Uremic Convulsions.

P—— F——, aged 16, was admitted into the City and County Hospital September 29th, 1887. At that time his entire body was edematous; a small quantity of smoky urine was being voided, containing a large amount of albumin, hyaline casts, and red and white blood cells. The diagnosis of subacute parenchymatous nephritis was made. The patient progressed favorably under treatment until December 3d. On the latter night he exposed himself by going to the water closet and walking about the ward in his night clothes. After this indiscretion he became unconscious and was attacked with frequent convulsions. After the convulsions the patient would relapse into a state of stupor, with stertorous breathing. During the convulsions there was tonic spasm of the diaphragm and of all the muscles of respiration. If aroused from stupor, the patient became frantic and attempted to leave his bed.

December 4th, at 11:30 A. M., when seen by Dr. Hirschfelder, the patient was completely unconscious and was still having convulsions at intervals, notwithstanding the fact that chloroform had been administered. When the next spasm came on, after chloroforming, he was given a hypodermic injection, containing three-fourths of a grain of pilocarpine. The patient slept quietly under the influence of the chloroform, and the pilocarpine caused decided salivation and diaphoresis, which lasted for nearly three hours. About 3:40 P. M. the convulsions returned and were very severe, the face and lips becoming cyanotic. The spasms would last about one minute, then the muscles relaxed and the patient would gasp for breath. The interval between the spasms became very brief, so that enough chloroform could not be given to stop them, as he did not breathe sufficiently often. He had had five of these convulsions and, notwithstanding that chloroform was given very freely, they increased in number and severity. During the fifth convulsion one-third of a grain of pilocarpine was administered hypodermically. The effect was magical. After about one minute another convulsion came on, but it was the last one and of short duration.

The patient was given a sweat at 6 P. M, another at midnight, and three on the following day. Up to the evening of Dec. 5th he showed no signs of rationality, but at 8 P. M. of this day, con-

sciousness returned. From the time that the convulsions began, up to the evening of the 5th, the patient had passed no urine. After he became conscious, a small amount of very bloody urine was voided; but, at this time, the urine contained only .5 per cent. of albumin, whereas before the convulsions there was as much as 2.4 per cent. Since the pilocarpine has been discontinued (Dec. 7th), the amount of albumin has increased somewhat, but the quantity of blood has diminished and he is passing an increased amount of urine.

At present (Dec. 17th) he is greatly improved, and there is much less edema of the limbs. The patient can now see the veins on the dorsum of the hand, which, he says, he has not been able to see before, since entering the Hospital. After the pilocarpine had been used, the pulse, which was frequent and small, in a very short time became slower and fuller. Only once was there any complaint from unpleasant sensations about the heart, and this was after a very large injection. The edema of the eyelids became much more marked after the injections. There is little doubt the secretion of urine was reëtablished by the use of the pilocarpine. During treatment the salivation and diaphoresis were both considerable, and there is little doubt that the reëstablishment of the urinary secretions was directly due to the pilocarpine.

The case is recorded, as it seems evident that the patient's recovery was owing to the physiological action of the drug and its promptness when given in this manner.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By Wallace A. Briggs, M. D., Sacramento, Cal.

Cancer of the Uterus.—In a paper read before the Ninth International Medical Congress, Dr. A. Reeves Jackson arrives at the following conclusions:

1.—Cancer of the uterus is originally a local disease, and is curable by complete removal.

2.—Any operation for cancer which does not completely remove the disease will be followed by recurrence.

3.—The extent of cancerous disease originating in any part of the uterus cannot be known prior to or during operation; hence no operative procedure can afford a guarantee of complete removal, or of immunity from recurrence.

4.—In the radical treatment of uterine cancer, the most favorable results, both immediate and remote, have been obtained by the amputation of the diseased portion by means of the galvano-cautery, the hot iron, and the knife.

5.—Kolpo-hysterectomy is more dangerous, and has given worse results than any other method of treatment. It has destroyed and has not saved life. It is an injurious and not a useful operation. It is more rapidly destructive of life than the disease against which it has been used; hence it should be condemned as unjustifiable.

In a paper read on the same occasion, DR. AUGUST MARTIN concludes that the greater the experience with vaginal total extirpation of the uterus, the more has the rule been proved that we should perform the operation only when the vicinity of the uterus is entirely free from carcinomatous infiltration. He recommends vaginal hysterectomy as the operation, that we should employ in cases of cancerous diseases of the uterus as long as the disease is limited to that organ.—*Annals of Gynecology*, November, 1887.

GUÉRIN reports the case of Mrs. X——, 50 years of age, who ceased menstruating more than ten years ago. She has all the appearances of excellent health. Last fall she had repeated attacks of metrorrhagia and later, pain in the hypogastrium. Called in consultation on April 2d, Guérin determined the following condition: Uterus slightly enlarged; cervix large, deep red, but not ulcerated; external orifice relatively small, especially for a multipara; touch painful; abdomen sensitive, particularly behind the pubis to the left; no trace of phlegmon. Diagnosis (provisional); subacute metritis. Some days later a slight hemorrhage; in the interval a muco-purulent discharge. A month later the hysterometer demonstrated the existence of a uniform tumefaction of the uterus—depth 7½ cm. But the instrument revealed no irregularity, no prominence of the uterine mucous membrane. Antiphlogistic treatment (leeches, poultices) continued for one week, when the local condition seemed favorably modified; cervix small and of normal color; muco-purulent discharge less abundant. Shortly after there was a new hemorrhage. Examination with Recamier's curette revealed the existence of a tender spot to the left, about the junction of the lower and middle third of the uterus. The curette removed *débris* that presented the macroscopic appearance of uterine fungosities. Eight days later fragments of tissue, resembling that of mucous polypi, were removed, and, after three microscopic examinations by M. Ranvier, were unhesitatingly pronounced epitheliomatous. Pajot had observed four similar cases in women who had not menstruated for several years. He had been in the habit of teaching that "an irregular uterine hemorrhage appearing in a woman who has not menstruated for five or six years, suggests cancer above everything else." Porak had seen three similar cases, in which the nature of the affection was positively demonstrated by the microscope. Vaginal hysterectomy was performed, because the symptoms seemed to indicate extension of the disease beyond the uterus. Doléris was of the opinion that it is not always easy, even by histological examination, to distinguish between fungosities of a purely inflammatory origin and those

of incipient cancer, and when the cancerous nodule is large enough to render the diagnosis easy, relapse is the rule, even after hysterectomy.—*Annales de Gynécologie et d'Obstetrique*, September, 1887.

Amputation of the Cervix Uteri during Hypnotism.—At the San Giacomo Hospital of Rome, on the 29th of July last, DR. MASETTI made an amputation of the cervix uteri of a patient rendered insensible by hypnotism. The experiment was crowned by complete success; not a cry, not the least movement, not the slightest sign of pain during the operation.—*L'Union Médicale*, September 20, 1887.

Electricity in Gynecology and Obstetrics.—*Uterine Fibroids:* The galvanometer, writes APOSTOLI, marks an era in medical electricity. It is to electricity what the balance is to chemistry. Its use is imperative.

The current should be turned on slowly and cautiously, and, for the first half minute, should not exceed 20 or 30 milliampères. It may be raised gradually to 70, 80 or 100 milliampères, but not beyond at the first sitting. Subsequently it may be raised to 100, 150, or even 250 milliampères. It should be reduced as it is augmented, slowly and cautiously, and every other precaution should be taken to avoid shock. At no time should the current be strong enough to produce severe pain. The sittings may last from ten to fifteen minutes, and may be repeated in from two to four days, or at longer intervals, as circumstances may indicate.

These maximum currents, otherwise insufferable, are distributed widely and equably by an electrode of wet potter's clay applied to the abdominal surface, and are thus rendered endurable and innocuous. [MÉNIÈRE has recently devised an intensity electrode, lighter and far more cleanly than one of potter's earth, and yet possessing all of the advantages of the latter. It is prepared from "gelosine," the mucilaginous principle of *gelidium corneum*, a Japanese alga found in abundance at Singapore. It solidifies 500 times its volume of water, and is employed by Ménière in the proportion of 18 parts by weight to 100 parts of glycerine and 400 parts of water.] This diffusion of the current renders the external pole indifferent and thus confines the galvano-chemical action to the internal pole and the interpolar tissues. The positive pole is decidedly hemostatic. In hemorrhagic cases, therefore, Apostoli introduces the positive electrode into the uterus; in all other cases, especially in those accompanied by either amenorrhea or dysmenorrhea, the negative.

The indications for galvano-puncture are two-fold: (1) uterine atresia or displacement preventing the introduction of the sound; (2) tardy or imperfect remedial action of intrauterine cauterization. Galvano-puncture is more difficult than cauterization, and in incautious hands is even dangerous. It should be practised only with the following precautions: 1. Thorough antiseptic irrigation of the vagina both before and after each operation; 2. Puncture with small steel trocar or needle, and not deeper than one or at most two centimetres; 3. Puncture the most prominent part of the fibroid—whenever possible, through the posterior *cul-de-sac;* 4. Puncture without speculum after careful determination of the most salient point of the tumor; 5. Ascertain the position of important vessels (by their pulsation) so as to avoid wounding them; 6. In case of excessive

hemorrhage immediately dilate the vagina with an expanding speculum, and, if necessary, apply pressure forceps to the bleeding points. The anatomical and clinical results to be expected are: (*a*) Regression of the tumor not only during treatment, but progressing after its suspension also; (*b*) In 95 cases of 100 the definitive suppression of all of the fibroid symptoms.

In 403 cases Apostoli has made 5,201 applications—cauterizations and punctures—with two deaths, and the production or aggravation of ten periuterine phlegmons. These accidents occurred in the early experimental stage of his work, and were due to (*a*) neglect of antiseptic precautions; (*b*) too high intensity of negative pole in subacute perimetritis. The negative pole is strongly provocative of congestion, and in the beginning must be used with great prudence and reserve. If there is any trace of periuterine inflammation, operative procedures must be conducted with the greatest caution and under the most stringent antisepsis.

Believing that quantity and not intensity is needed in these cases CUTTER uses a battery of Stöhrer's pattern, consisting of eight zinc and an equal number of carbon plates, 9 inches by 6, and furnishing a current of 27 ampères. What part of this current he uses he does not state. His electrodes consist of two ordinary surgeon's directors, with sharpened points and edges and ebony handles. Two inches of the larger end are japanned for insulation. The foramina are enlarged sufficiently to admit the ends of the conductors. Under anesthesia the electrodes are introduced through the abdominal, the vaginal or the rectal walls, as the position of the growth may indicate. The first application should be short. If this be well borne future applications may be prolonged, but Cutter's best result was accomplished by three-minute sittings. His longest sittings, which he pronounces too long, did not exceed fifteen minutes. Applications are made daily (rarely), weekly or fortnightly. Subsequent pain is controlled by morphine, and prostration by stimulants. Cutter reports 50 cases in extenso: 11 were cured, 3 relieved, 25 arrested, 7 not arrested, 4 fatal.

Amenorrhea: Faradism is extolled by GRANDIN in amenorrhea dependent on "atony of the sexual system." Applied during the molimen it not only restores menstruation, but also regulates it. MUNDÉ also uses the faradic current during the pre-menstrual period of cases of amenorrhea not dependent on anemia, debility, or on change of occupation or climate, but not to the exclusion of other local and constitutional measures. Ménière is in accord with both Grandin and Mundé as to the value of the faradic current in this condition. Sittings of from three to ten minutes suffice.

Dysmenorrhea: In both the mechanical and the neuralgic form of this affection, after the failure, either partial or complete, of other methods of treatment, Mundé has derived great advantage from the use of the continuous galvanic current. He introduces the negative electrode into the uterus and turns on the current of ten cells. According to Ménière the sittings should last from twenty to thirty minutes.

Subinvolution: While the uterus is still soft and vascular, Mundé prefers the faradic current; later, when the uterine tissues have become

somewhat dense and hard, the interrupted galvanic. These currents are transmitted to the uterus by an olive-pointed electrode applied to the external os. In case of menorrhagia he administers the faradic current as strong as the patient can tolerate it. Grandin believes that the use of the galvanic or interrupted galvanic current for fifteen minutes every other day will diminish congestion and stay hemorrhage and leucorrhea far more rapidly than any other method or combination of methods.

Areolar Hyperplasia: Both Mundé and Grandin speak somewhat less glowingly of electricity in this than in the preceding condition. Mundé employs negative intrauterine galvanization with from 12 to 18 cells. The nervous symptoms are sometimes relieved by it without any modification of the local condition.

Endometritis: As a substitute for the curette and chemical cauterization, Apostoli proposes the galvanic current. He maintains not only that this is strongly antiseptic as well as caustic, but also that it exercises a "posthumous" influence on the concomitant lesions of the parenchyma. This he denominates the "interpolar trophic action." It constitutes the chief superiority of electricity over chemical and surgical procedures. He uses the galvanic current of caustic strength, which he does not express in milliampères. In catarrhal endometritis Grandin employs galvanism, but in the other forms of this disease he still retains the applicator.

Chronic Pelvic Peritonitis and Cellulitis: Pelvic lymphadenitis and lymphangitis local and reflex pelvic neuralgia. In old pelvic adhesions, writes Mundé, treatment is very unsatisfactory. The usual means sometimes produce slight amelioration, but as a sedative and absorbifacient he knows of nothing better than frequent and long-continued use of the galvanic current. Its anesthetic influence is particularly marked. In chronic pelvic cellulitis and in neuralgia dependent on plastic exudates in the neighborhood of the nerves, tincture of iodine furnishes better results than in pelvic peritonitis, but even here galvanism relieves much more rapidly and often definitively. Mundé does not believe, however, that either in the acute or in the subacute stage of pelvic cellulitis the exudate is favorably influenced by galvanization. In pelvic lymphadenitis and lymphangitis, on the contrary, it renders great service.

Uterine Inertia: Apostoli employs the faradic current in this condition during and after labor, and recommends it as the safest and most trustworthy remedy. Grandin advises carrying a Gaiffé or other small faradic battery in the obstetric bag, and relates the following case, illustrating the benefits of its use in uterine inertia during the second stage of labor: In a primipara the first stage had been completed for five or six hours, the pains had ceased entirely, and all efforts to reawaken them had failed. Ergot had been forbidden. One electrode was placed in the patient's hand, and the other over the uterus. A weak current was passed. In ten minutes the pains recurred, and in about fifteen minutes the third stage was spontaneously completed.

LITERATURE: Cutter, *Am. Jour. of Obst.*, Feb., March, and April, 1887; Grandin, *Am. Jour. of Obst.*, April, 1887; Apostoli, *Gazette de Gynécol-*

ogic, Aug. 15, 1887, and *Br. Med. Jour.*, Oct. 1, 1887; Webb, *Br. Med. Jour.*, June 4–18, July 9–16, 1887; Steavenson, *Br. Med. Jour.*, Oct. 1, 1887; Mundé, *de l'Electricité comme agent Thérapeutique en Gynécologie*, Paris, 1887 Ménière, *Gazette de Gynécologie*, Aug. 1, 1887.

SURGERY.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Co's Hospital, Sacramento, Cal.

Treatment of Peritonitis by Laparotomy.—The idea of opening the abdomen and washing out the peritoneal cavity for peritonitis seems to have been suggested as far back as 1848, but the practice, for reasons which it is not difficult to conceive, has progressed but slowly. It was first proposed for acute peritonitis, and later on it has been employed with marked success in the treatment of encysted and tubercular peritonitis. The discussion which took place at the Clinical Society, on Friday last, on several papers bearing on this subject, was of interest, and gives a good idea of what has so far been accomplished in this direction. So far as concerns suppurative peritonitis, the rules apply which apply to suppuration in serous cavities elsewhere—the knee joint, for example. There is practically no alternative save the "expectant" treatment, which, with the brilliant record of cures before the profession, would be altogether unjustifiable. The only point on which opinions differ is as to the desirability of draining the peritoneal cavity through the abdominal wound. Mr. Barwell is strongly opposed to this as useless and possibly dangerous, for mechanical reasons, but was evidently partial to the idea of draining through Douglas' pouch in female cases. The latter procedure is viewed with some disfavor by gynecologists in their abdominal operations, and appears to have dangers of its own. The question, therefore, is whether drainage is indispensable, or whether it is not. Mr. Bardwell maintains that it is best dispensed with, and produces his patient in support of his contention; Mr. Frederick Treves, on the contrary—and he expressed the opinion of most of the speakers—considers drainage an essential step in the operation. Experience alone will show which is right; possibly there are varieties which may require it, and others in which it is less essential. The operation has not yet been performed on a sufficiently large scale to enable definite rules of conduct to be laid down, but common sense would suggest that if drainage of any kind be thought desirable, it should be planned with due regard to the law of gravitation. Surgeons of the old school cannot fail to be surprised at the ease and safety with which the peritoneum can be cut into, sponged and irrigated. This is especially the case when the membrane has been the seat of chronic inflammatory changes, as in tuberculosis. The result in many cases would seem to warrant the use of the word "cure," in reference to the tuberculous condition which was proved to exist. Not only did the local tubercular lesions become quiescent, or even disappear (so far as can be judged), but any pulmonary symptoms also underwent marked improvement. In a paper read before the Congress of German surgeons, recovery took place in 30 out of 36

cases. If the diagnosis of tuberculous peritonitis is to be accepted—and every precaution would appear to have been taken to ensure its accuracy—then our views of the pathology of tuberculosis must needs be modified. This indeed may underlie the reluctance manifested by many eminent authorities to accept of the natural conclusion to be drawn from the startling results obtained. A more mature experience will enable us to ascertain with greater precision the indications for treatment and their bearing.

An important case bearing on the subject is reported in the *Meditzinskoie Obozrenie*, No. 12, 1887, p. 1177, by DR. A. J. KARMILOFF, house surgeon to the Moscow Military Hospital; it was an instance of purulent, circumscribed peritonitis cured by antiseptic abdominal section, with subsequent drainage. The patient, aged 16, a weak, extremely anemic, and emaciated pupil of the Moscow School for Medical Assistants (*Feldshers*), was suddenly attacked by acute perityphlitis. About the end of the third week he was transferred from the medical wards to the surgical ones, where there were found all the symptoms of suppurative inflammation of the peritoneum in the hypogastric and mesogastric regions, up to a transverse line slightly above the umbilicus. At the same time the presence of pus within the left half of the scrotum was detected. An aspiration along the white line of the abdomen drew out pus. A median incision (reaching from the pubes up to the navel) having been made, a quantity of offensive gas and thin, flaky, purulent fluid escaped. Two fair sized drainage tubes, each eight centimetres long, were inserted into the wound, and the peritoneal cavity thoroughly washed out with a warm 1:30 per cent. solution of corrosive sublimate, until the returning water became quite clear and limpid. About a week later the scrotal abscess was cut into and drained. On the 22d day after the laparotomy the patient could sit up in bed; on the 29th he was up and about; and on the 34th left the hospital quite well and strong. The abdominal wound healed by first intention. A case of diffuse purulent peritonitis successfully treated by antiseptic laparotomy, and drainage has been recently reported by Prof. Appolon G. Podrez, of Kharkov, in the *Vratch*, No. 46, 1886. While pointing to these cases, as well as to that of Lueke, Caselli, Lavensi, etc., Dr. Karmiloff repeats Caselli's words: "It is time to take the treatment of purulent peritonitis from the hands of physicians, who are powerless in their struggle with that disease, and to hand it over to the care of the surgeons."—*British Medical Journal*, Nov. 12, 1887.

Result of Operation for Cancer of the Breast.—HILLDEBRAND (*Deutsche Zeitschrift f. Chirurgie*, Bd. xxv), gives some interesting statistics upon the results of removal of the breast for cancer, in the Gottingen clinic from 1875 to 1885. The whole number of cases operated upon was 152. In 137 the axilla was also cleaned out, often when no implication of the axillary glands was apparent; 11 times the breast alone was removed; and four times only the tumor was excised. The deaths from the operation numbered 11—that is, 7.2 per cent. The cause of death was either septicemia or pneumonia. From the latter cause six patients died. As to the results: in 135 cases in which a radical operation was performed, recurrence took place 65 times—half of them within six

months. Of the 135 cases, 23 were free from recurrence for at least three years; 30 for at least two years; and 53 for at least a year. Hilldebrand calculates the absolute cures as about 33 per cent., and emphasizes the importance of early and thorough operation, upon which so much stress has been laid by Prof. S. W. Gross, of this city. An interesting feature of Hilldebrand's study relates to the age and condition of the patients. He found the age of greatest frequency of cancer of the breast to be from the forty-fifth to the fifty-fifth year; and that nearly 90 per cent. of the patients were married.—*Medical and Surgical Reporter*, Nov. 19, 1887.

Fecal Fistula of the Umbilicus.—M. PÉDENAT presents a case (*L'Union Médicale*) of fecal fistula of the umbilicus which had existed for two and a half years, and which was successfully treated by electrolysis in seven *séances*. The fistula followed grave symptoms of intestinal obstruction, and was preceded by an abscess. Once established it persisted, in spite of cauterization with nitrate of silver and tincture of iodine, allowing the escape daily of five or six tablespoons full of a chymous substance, accompanied by eructations; blood was also discharged at the molimen. After examination the author concluded that he was dealing with a fistula caused by ulceration of a diverticulum of Meckel fixed to the umbilical cicatrix, and he obliterated it by electrolysis. The positive pole represented by a platinum stylet was introduced for the length of the passage. The negative pole, attached to a zinc plate and embedded in a slab of potter's clay, was applied to the lower portion of the abdomen. The current strength varied between 35 and 50 milliampères. After the third *séance* the discharge had diminished, and it was completely arrested after the seventh. The result has been permanent.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M. D., Sacramento, Cal.

Visual Changes during Affections of the Nervous System, by FINKELSTEIN (Clinic of Professor Merjoiewsby).—The conclusions are based on 120 observations, of which 47 were epileptics, 24 hysteric or hystero-epileptic, 30 neurasthenic, 15 chronic alcoholism, 2 saturnine intoxication, 1 ergotism, 1 mercurial poisoning. In epilepsy there is observed a concentric diminution of the visual field which makes its appearance at the same time of the other prodromata, and attains its maximum immediately after the attack, then the visual field begins to dilate again. The relative extent of the visual field for different colors is the same as the physiological condition. There is observed a certain amount of Daltonism, which always begins with green. The first color perception to be restored to its normal is blue, then red, yellow, and lastly, green. These modifications in the visual field may serve, according to the author, to distinguish true epilepsy from feigned attacks. At the same time there is a diminution of the acuteness of hearing, especially on the side opposite to the eye which has the maximum diminution of the visual field. Finally the sense of taste is changed, blunted or abol-

ished. During the period following the attack the author often observed scintillating scotoma and exhaustion of the retina. In two cases of hysteria the author observed paracentral scotoma. In neurasthenia there is seen a diminution of the visual field for colors, a disturbance of the color sense, a disappearance of certain color senses, especially green. In chronic alcoholism there is contraction of the visual field and suppression of the sense of green. The author also made similar investigations in women at the time of menstruation, and found that the visual field becomes contracted after the loss of blood. The maximum diminution is produced on the third or fourth day; finally there is occasionally difficulty in the perception of green.—*Rev. de Méd.—L'Union Médicale.*

The Treatment of Trachoma.—Among diseases of the eye, trachoma is one of the most important, both in regard to its frequency and difficulty of cure, as to the effect upon the vision. All methods of treatment up to the present time have given only imperfect results. The granulations are not as superficial as one would at first think. The treatment, to be effective, must reach, so to speak, the root of the disease. In that respect the experience of M. TSCHEPKINE presents real interest. The author, with a Pravaz syringe, injected, in seven cases of granular ophthalmia, a 2-per cent. solution of carbolic acid under the palpebral conjunctiva, and in each case obtained the most satisfactory result; in the seven cases the granulations completely disappeared after two or three injections. The method of operation is very simple. An assistant draws the lid down while the operator grasps the conjunctiva with a fixation forceps, and on a level with the point of fixation covered with granulations, the point of the needle is introduced, two or three drops of the solution injected, and the needle rapidly withdrawn. The important point is to inject the solution into the deepest layers of the conjunctiva. The operation is certainly painful, but with the aid of cocaine can be rendered absolutely painless. After the operation there is a free lachrymation, the conjunctiva becomes a little red, which phenomena disappear in ten or fifteen minutes, but there is never pain or photophobia. —*Vratch—L'Union Médicale.*

Periodical Paralysis of the Motor Oculi Nerve.—DR. P. J. MÖBIUS describes a case occurring in a little girl 10 years old who presented a total paralysis of the motor oculi muscles of the right side comprising pupilary fibres. It had appeared 4 weeks previously simultaneously, with vomiting and pain in the right eye. The pain continued for 14 days and the vomiting eight days. The paralysis gradually disappeared during the succeeding six weeks, and at the end of 10 weeks from the first symptoms nothing remained but mydriasis and paralysis of accommodation. At the age of one year the child had had a similar attack, which disappeared after three days. Again, at the age of four, another attack, which lasted eight weeks, and after several years a third. All of these attacks, with the exception of the first, began with pain in the right eye.

The author has found in medical literature two other cases—one reported by Hasner and the other by Saundby—which are similar to his in regard to the periodical paralysis of the motor oculi muscles. In his case, as in that of Saundby, each attack was more severe than the preceding

one, and, as in the case of Hasner, the paralysis finally disappeared. In his case, and also in Hasner's the periodicity was well marked and the cause remained unexplained. In regard to admitting as the origin of the disease an affection of the oculo-motor root, Dr. Möbius relys on the distinction which exists between central and peripheral oculo-motor paralys's. The positive indications of paralysis of central origin being: 1. The d'sposition of the paralytic phenomena, that is to say, the local grouping of symptoms agreeing with the nuclear region; 2. Associated and conjugated paralysis; 3. The appearance of the paralysis concomitant with pain in the eye and vomiting. The latter symptom in particular indicates strongly to the author the central origin. He explains the pain in that case by admitting of irritation of the descending root of the fifth pair which borders on the oculo-motor nucleus. The vomiting is considered to be reflex, following irritation of the central fibres, as in hemicrania, cerebral tumors, etc. In regard to the nature of the central affection, Möbius preserves a judicious silence, suggesting, however, the possibility of the existence of glioma.—*Centralblatt f. klin. Med., Rev. Clinique d'Oculistique.*

Iodol in Ocular Therapeutics.—A. Trousseau says (*Bull. et mém. de la Soc. de Thér.*) that iodol should not be used in the eye, either as a powder or in alcoholic solution, as the irritation resulting is too great. The author has used an ointment of one part of the powder to five of vaseline, or an alcoholic solution in combination with glycerine, in the following proportions: Iodol 3, alcohol 35 and glycerine 62 parts. Dr. Trousseau found the new preparation useful in chronic ulcerative blepharit's: the ointment is to be applied five or six times daily, and also apply the a'cohol and glycerine, with a brush. In torpid chronic conjunctivitis, the ointment, applied four or five times daily, will be found useful. Phlyctenular conjunctivitis is rapidly improved by the iodol salve, and is found much less painful than yellow precipitate. Good results are also obtained with it in phlyctenular keratitis, as well as in torpid ulcers of the cornea. The alcoholic solution may be used with favorable prospects in cases of trachoma. As iodol is almost insoluble in water, it cannot be employed in aqueous solutions. The alcohol and glycerine solution has the consistence of syrup, and cannot therefore be used in diseases of the lachrymal passage.—*Schmidt's Jahrbücher.*

Tumor of the Optic Nerve.—Dr. Geo. E. Frothingham reports (*Jour. Amer. Med. Assoc'n.*) two cases of this affection. The first was that of a boy 7 years old, whose father had noticed that the right eye seemed larger than its fellow, and was totally blind. It had changed but little in appearance since first noticed. There had been but little pain in the eye, and no headache. The tension was normal; the eye totally blind. Left eye normal, with good vision. Ophthalmoscopic examination showed disc of right eye elevated and indistinct. The lymphatic glands of the neck were enlarged, and the patient had the appearance of being affected with scrofula. No tumor could be felt, the walls of the orbit seemed smooth; the eyeball was d'splaced about 3 mm. forward; its movements being unrestricted. The diagnosis of tumor of the optic nerve of unknown character was made and iodide of potash and citrate of iron and ammonia

were ordered and given, the patient to return in two weeks. Three weeks later, the enlargement of the lymphatics had become less and the general condition improved. Iodide was continued, and at various times cod liver oil and bitter tonics, for nearly two months. The eye symptoms remained about the same as at first. After two months intermission, syrup of iodide of iron was administered in place of iodide of potash, etc. Six months after first examination it began to project a little more, and at the end of a year a yielding tumor was felt with the finger pressed into the orbital cavity. Three months later the tumor had enlarged quite rapidly and the exophthalmos was extreme. Enucleation was advised and performed. The growth was found to spring from the optic nerve, extending from its insertion into the globe to the optic foramen. The tumor was removed as thoroughly as possible, with probe-pointed scissors. Four years later there was no return of the disease, and the other eye remained healthy. A microscopic examination showed the tumor to be a round celled sarcoma.

The second case, a girl, æt. 19, gave the following history: Nearly a year previously she had an attack of frontal headache, accompanied by vertigo and a dull, heavy feeling over both eyes, with a slight pain in the left orbit. Symptoms subsided in a few days, with the exception of a slight dull pain in the left eye. The sight in that eye soon began to fail, and the eye bulged slightly. The ophthalmoscope showed no abnormal condition in the fundus. Useful vision existing, enucleation was not advised; but the patient was instructed to return if sight became obliterated or the tumor grew rapidly. About a year later the patient again presented herself and stated that the growth had remained stationary until about two weeks previously. Exophthalmos was excessive, vision gone, and dull pain in eye. Diagnosis, tumor probably of optic nerve; immediate operation advised. Enucleation was performed, under strict antiseptic precautions. Erysipelas and symptoms of meningitis supervened, much sloughing followed, and deformity was left which did not permit an artificial eye to be worn. The tumor was found to be a round celled sarcoma, similar to that in the first case.

DERMATOLOGY AND VENEREAL DISEASES.

By G. L. Simmons, Jr., M. D., Sacramento, Cal.

Chronic Eczema.—In the Hamburg Clinic the diagnosis of chronic eczema is made by Unna only after a thorough and searching examination of the case. It is too frequent in special and general practice to class any inflammatory condition of the skin, accompanied by vesicles, itching and scale formation, as a "chronic eczema," and a move in the above direction from such authority will influence more accurate diagnosis.

Pediculosis.—Dr. F. B. Greenough, of Boston, read before the American Dermatological Association his statistics of the proportion of cases of pediculosis to the total number of cases of skin diseases. He found

this proportion to be, in Boston, 5.5 per cent.; in New York, 3 per cent.; in Philadelphia, 3.33 per cent.; in Baltimore, 2.12 per cent.; in St. Louis, 1.5 per cent.; Chicago, 3 per cent.; Canada, 3 per cent.

Nitrate of Silver Discolorations of the Skin.—The *British Medical Journal* quotes from the *Vratch* the case of a sturdy peasant whose foot, through an accident, became the seat of numerous granulomata. These, some fifteen in number, were treated by Paquelin's cautery, and afterwards with the solid nitrate of silver. These fifteen cauterizations with the nitrate were again repeated in the course of two and one-half months. The man grew emaciated, and, in addition to hemiplegia, the symptoms of argyricism became apparent. Tepid baths, iodides and glauber salts were then given, but to no permanent benefit. The amount of silver salt employed in the whole course did not exceed one dram and a half, and that it should produce such serious disturbance, used as it was over such an extended period (twelve months) is rather remarkable.

Congenital Stricture.—Dr. McCann (*Dublin Journal of Med. Science*) showed before the Academy of Medicine the parts removed from a child recently dead, but born at full term. They illustrated congenital stricture of the urethra, and, in addition, great hypertrophy of the bladder and cystic degeneration of the kidneys. In addition to these, the child had spina bifida and imperforate anus.

Syphilis in the Female.—Dr. Fournier recently read these rather interesting statistics before the French Academy of Medicine:

1st. Cases of syphilis (sexual origin), 842; 2d. cases of syphilis (non-venereal origin), 45. Total, 887.

The second group comprises: Cases of hereditary syphilis, 7; cases accidentally contracted during childhood, 4; cases of infection by wet nurses from infants suffering from hereditary syphilis, 8; cases of midwives infected on hands or fingers, 5; cases of domestic contagion from wet nurses, infants, etc., infected—all observed in married women and young girls, 12; cases resulting from vaccination, 2; cases of catheterization of eustachian tube, 2; cases following rape, 1; cases origin unknown, but not from venereal origin, 4.

The first group, comprising 842 cases of sexual origin, were divided thus: 1st. Women of irregular life and habits, 366; 2d. Married women, 220; 3d. Women of unknown social standing, 256. Total, 842.

The object of this table is seen in the fact that syphilis is not a disease derived exclusively from debauch, but that it may be, and is, largely contracted in an innocent way by those in the best social circles—honest and moral in every respect.—*American Lancet*, December, 1887.

The Bichloride in Gonorrhea.—Dr. Francis Cadell (*Edinburgh Med. Journal*, Dec. 1887), advocates the bichloride of mercury injection in gonorrhea—strength of 1 to 10,000 to 1 to 60,000—and, in addition to the sublimate, the author is in the habit of using, in equal amount, boric acid in saturated solution. The use of cubebs, or copaiba, or sandal wood, internally, is still reckoned as a valuable adjunct. If the case be uncomplicated, he expects recovery in two weeks.

MATERIA MEDICA AND THERAPEUTICS.

By Wm. Watt Kerr, M. A., M. B., C. M., Professor of Therapeutics, University of California, San, Francisco

Antipyrine and Antifebrine.—At present there is a contest for supremacy between these two remedies; which can only be decided after more prolonged investigation by both physiological and clinical methods; for the numerous articles that are scattered through various journals have opened up new paths of inquiry which tend to show that neither of these drugs possess that singleness of action, which at first it was hoped would be their leading characteristic and special recommendation. In addition to the case of fatal depression, supposed to be due to a large dose of antipyrine, reported by Dr. Barrs, there have been several other instances in which even a small dose—such as seven or eight grains—has produced severe and alarming toxic phenomena; while the *New York Medical Journal* mentions a case of fatal collapse occurring after 60 grains of antifebrine had been given during 24 hours, and Dr. Bauer, of New York, states that he has several times seen cyanosis produced in women after they had taken four grains of the same drug three or four times. While these accidents are by no means common, they are sufficient to show that reasonable caution should be exercised in prescribing these drugs. As a simple antipyretic, antipyrine is slowly giving place to antifebrine, as the latter, although not quite so speedy in its action, is more persistent in its effects, free from subsequent depression, and is given in much smaller doses. The depressing influence of antipyrine is a very serious objection to its use, especially in the treatment of typhoid fever, for which it has been so highly recommended. It stands to reason that in a disease whose character is adynamic, where there is a continual possibility of fatal depression from hemorrhage, the use of a drug whose secondary effect is well marked depression, must be attended with some risk, no matter how great the primary benefits may be. In both private and hospital practice we have seen a feeble and intermittent pulse follow even small doses of antipyrine so that the drug had to be discontinued, and as this has been the experience of several physicians, we have almost discarded it in this disease and substituted quinine or antifebrine in its place. Unpleasant secondary symptoms are much less frequent with antifebrine, while its antipyretic effect is much more persistent. Neither of the above remedies have any influence in cutting short typhoid fever. They only modify the temperature, and as pyrexia is not the first formidable feature in the case of typhoid fever, there should be no diminution in the careful watching which this disease has always demanded.

Dr. Cheatham, Louisville, Ky., writes to the *Medical Record*, recommending a daily dose of antipyrine, grs.xv., or antifebrine, grs.vi., in the treatment of hay fever. He mentions several cases where these doses were given daily during a period of more than six months, with the greatest benefit to the patient. Any depression consequent upon the antipyrine was readily relieved by small doses of atropine or belladonna. As a nervine we know as yet comparatively little regarding antifebrine; but it would appear that antipyrine must soon play an important part among this class of remedies. We have not found anything so prompt

and efficacious in removing sick headache, the headache following the administration of opium, or the pain of cerebral tumors, as 15 grains of antipyrine, repeated in one hour if necessary. The results in hemicrania and facial neuralgia have not been so encouraging. The *Lancet* reports the testimony of two physicians regarding its great value in curing sea-sickness, and from the same authority we learn that inhalations of antipyrine (15 grains in an ounce of water), have been very successful in arresting hemoptysis.

Uses of Nitro-glycerine.—The action of nitro-glycerine in dilating the arteries is of great value, since it not only affects the large and smaller arteries, but also the capillaries. We might regard its actions in a twofold light: First it enlarges the arteries which have been contracted, and so transfuses the blood into those almost bloodless vessels; second, in doing so it relieves those vessels which have been surcharged with blood, and thus its action might be compared with that of bleeding. The best indication for nitro-glycerine is the condition of the pulse. The more contracted the radial artery is, the sooner it will dilate under the drug, and the accompanying effects will be good. The fuller the pulse the less effect nitro-glycerine seems to have, and the weaker and more yielding the pulse the easier it will be to cause an undue and general effect on the whole organism. It is useful in angina pectoris, neuralgias, sea-sickness, fainting fits, etc., in all of which it is given to afford immediate relief, while its continued administration will be of service in Bright's disease, fatty heart, or wherever there are indications of irregular distribution of the blood. The drug is not contra-indicated by organic heart trouble, but must be given with the greatest caution wherever there is general atheroma of the arteries. Its use may be interrupted for two weeks, and on its renewal it will be found to be as efficacious as when first administered.

Antisepsis in Pharyngeal Diphtheria.—1. Applications of an alcoholic solution of sublimate, one to one thousand (Kaulich). The application to be made four times daily.

2. During the intervals irrigate with a solution of boracic acid, one to one hundred (Hutinel).

3. Internally administer every hour a coffeespoon full of Letzirich's benzoate of soda mixture, of which the dose varies from five to ten gm., according to age. It can be administered in the following formula:

℞—Soda benzoat. - - gm. 10
Aquæ destill.
Aquæ menth. pip. aa. 40
M.—

This treatment should be combined with the administration of alcohol, coffee, a varied diet, and an aseptic atmosphere in the sickroom. The mercurial treatment is the most antiseptic, if not the most free from danger.—*Rev. Gén. de Clin. et de Thérap.—L'Union Médicale.*

Ichthyol in Erysipelas—The treatment recommended by NUSSBAUM is as follows: The wound attacked by erysipelas is disinfected and covered by iodoform gauze; the erysipelatous surface is then painted

with an ointment made of ichthyol and vaseline in equal proportions, the whole being covered with 10 per cent. salicylic lint and fixed with a bandage. On the following day it will be found that the erysipelatous patch has become limited, altered in color, and painless. After three days the dressing is discontinued. Cases treated after this method yielded good results. Ichthyol collodion is recommended for applications to the face, and ichthyol soap for the scalp.—*Medical Record*, Nov. 26, 1887.

Nitrite of Amyl in Cholera—Dr. Palm recommends this agent in the treatment of the collapse of cholera, basing his recommendation on the fact that nitrite of amyl has an antagonistic action to the cholera poison. While the latter causes a dilatation and congestion of the vessels of the viscera and a contraction of the superficial vessels, the former dilates the superficial vessels, and must in consequence relieve the congestion of the visceral circulation. His researches with this agent were made during a cholera epidemic in Japan in 1879, and he believes that many lives in consequence were saved. His plan of administration was to hold a bottle of it under the nostrils, directing the patient to inhale freely, and controlling such inhalation by the condition of the pulse.—*British Medical Journal*, Nov. 5, 1887.

MEDICINE AND PATHOLOGY.

By Albert Abrams, M. D., Demonstrator of Pathology, Cooper Medical College, San Francisco, Cal.

Late Methods of Diagnosis and Treatment in Diseases of the Stomach.—Hertzka (*Munch. Med. Wochenschr.*, Nr. 34, 1887,) in an interesting article refers at length to the chemical analysis of the stomach contents as an exact means of diagnosing gastric disturbances and on which a rational therapy may be founded. The contents of the stomach removed in the conventional manner are filtered through charcoal and the filtrate subjected to the following tests: 1. Examination for the reaction; 2. examination for free hydrochloric acid; 3, examination for organic acids; 4, examination for peptic strength; 5, examination for percentage of acids. The reaction is first ascertained by means of litmus paper, then the presence of free hydrochloric acid is determined by Kongo-paper, or by aqueous solutions of either tropæolin or methyl-violet. Filtering paper, saturated with Kongo-red in the presence of free hydrochloric acid will turn blue. Tropæolin and methyl-violet are less exact than the former. The presence of lactic acid is determined by Uffelmann's solution [Liq. ferri sesquichlor, .25 solutio. acid carbol. 4 per cent., aquæ destillat, aa. 20.0] which turns yellow in the presence of the acid. The peptic strength of the gastric secretion is established by noting the time it takes to digest at the bodily temperature a piece of egg albumen (1x8 mm.) in 10 cm. of the filtrate, one-half to one hour being the normal time for such digestion. The determination of the percentage of acids is usually a tedious, and often an unnecessary procedure. The absence of free hydrochloric acid in the gastric juice is now considered a diagnostic feature of cancer of the stomach, although the acid may be absent in amyloid degeneration, toxic gastritis, fevers, and when regurgitation of bile occurs. Hyperacidity of the secretion characterizes

gastric ulcer and the usual protracted course and liability of the latter to recur has been ascribed to this fact. Hypersecretion of the gastric fluid affects amylolytic digestion. With these late methods of diagnosis the indications for the use of alkalies and acids can better be specified. Hydrochloric acid is indicated when produced in small amount. Thirty drops of the acid in water to be given one hour after eating. Excessive production of acids requires the use of alkaline mineral waters, bicarbonate of soda in large doses, or lavage of the stomach prior to eating. In hypersecretion and hyperacidity, amylaceous diet must be interdicted, although albuminoids may be countenanced. When the acids are diminished, albuminoids must be prohibited. In many forms of muscular insufficiency of the stomach the use of electricity and massage may be resorted to with advantage.—*N. Y. Medezin. Presse*, Oct., 1887.

Method for Determining the Presence of Trichinæ in Pork.—This method, introduced by CLOSE, appeals at once to the microscopist for accuracy and simplicity. The suspected piece of meat is put into a mixture of pepsin and hydrochloric acid and allowed to remain in a conical-shaped glass. In the latter the free trichinæ are readily deposited, and may be removed by means of a pipette for microscopical examination.—*Wiener Med. Presse*, Nr. 24, 1887.

Treatment of Chronic Constipation.—LEUBUSCHER (*Centralblatt f. klin. Medicin*, Nr. 25, 1887,) in a general way ascribes the etiology of chronic constipation to a faulty action of the physiological forces which expel the feces. The forces are, the abdominal muscles and peristaltic action of the intestines; the latter, however, may be taken as the usual force at fault. He resorts to electricity and massage as therapeutic measures. Violent peristalsis could be provoked and seen in hernia with attenuated covering by the use of the faradic current. The author experimented on healthy young students with the galvanic and faradic currents, introducing one electrode into the rectum, the other on the abdomen. The strength of the current was never strong enough to produce pain, and the current allowed to act from 10 to 15 minutes at each sitting. The result in every case was satisfactory, only differing with the form of electricity used. With the galvanic current, defecation followed the application in one hour and a half; with the faradic current in from two and one-half to three hours. He went further, and applied the electrical treatment in 15 of the most obstinate cases of constipation, using the galvanic current particularly. Three to five weeks constituted the course of treatment, and the result may be summarized as follows: In two cases no result; in nine cases the results were satisfactory; defecation regularly followed without recourse to purgatives. These results, however, continued only a few weeks after the cessation of treatment, the patients gradually relapsing into their former condition. In four cases the treatment was followed by cure. No ill effects followed the treatment other than slight tenesmus, which readily disappeared and was owing, no doubt, to rectal irritation induced by the presence of the rectal electrode. The consistency of the fecal discharge after this treatment was different from that after the use of strong purgatives; in the former instance it was soft and moist, in the latter usually hard and dry. Leubuscher, in carrying out his

massage treatment for chronic constipation proceeds as follows: After placing a cushion in the lumbar region of the patient, the abdomen is rubbed with vaseline, then with the flattened hand, friction is made from the median line outwards and downwards with a strong degree of pressure. Other movements are made in the direction of the colon, beginning at the cecum. Each sitting lasts about 15 minutes. The massage treatment in 10 cases yielded as a rule good results. As indications for massage — abnormal weakness of the abdominal muscles, atrophy of the intestinal muscular tissue and in constipation from chronic cardiac and pulmonary troubles may be named. In those cases where general nervous symptoms are predominant the use of electricity is indicated.

Stuttering.—It is a well known fact that stutterers, when speaking in a whispering voice, show no impediment of speech. This fact has been turned to account by COEN. His method of treatment is as follows: In the first 10 days speaking is prohibited. This will allow rest to the voice and the apparatus concerned in articulation, and constitutes the preliminary stage of treatment. During the next 10 days, speaking is only permissible in the whispering voice, and in the course of the next 15 days, the ordinary conversational tone may be gradually employed.—*Wiener Med. Presse*, Nr. 4, 1887.

Nervous Symptoms from Ocular Defects.—R. W. AMIDON (*Boston Medical and Surgical Journal*, Nov. 24, 1887,) considers this subject as a neurologist, and presents many interesting data which are of interest to the general practitioner. Among the common nervous symptoms which may have their origin in ocular defects are headaches located in the occipital, frontal, temporal or vertical regions. Paresthesiæ and neuralgiæ in various parts of the body, hemicrania, vertigo, nausea, etc., may likewise be referred to the same cause. Among the ocular defects which may be mentioned as giving rise to these varied symptoms are, insufficiency, hypermetropia, myopia, astigmatism and presbyopia. A careful study of 162 cases enabled AMIDON to deduce the following conclusions:

1. Patients in whom insufficiency of the internal recti-muscles is a prominent defect are very apt to suffer from sensory disturbances in the occiput, nucha, shoulders and back. The disturbances may take the form of acute or dull pain, a heavy pressure feeling or various paræsthesiæ, hard to describe and at times exceedingly annoying to the patient.

2. Patients in whom insufficiency of the other recti is prominent do not appear to be subject to occipital disturbance, but, next to asthenopic symptoms which are almost always present, seem to suffer most from vertigo, diplopia and confusion.

3. In hypermetropia and hypermetropic astigmatism, the most frequent complaint, aside from asthenopia, is of frontal headache.

4. In myopia and mixed astigmatism, frontal, temporal and general headaches are about equally common.

5. In cases combining hypermetropia and myopia with presbyopia, frontal, temporal and occipital headaches and vertigo, are present in about equal proportions.

6. In pure myopia and presbyopia, nervous symptoms are seldom prominent.

It is well, then, when these sensory disturbances are present and aggravated by increased use of the eyes, the latter should be examined; especially so when no apparent cause exists for the nervous disturbances. When errors of refraction exist, Amidon recommends the correction of same by properly adjusted glasses. He deprecates, however, our utter neglect of medical treatment. Sufferers from insufficiency of the ocular muscles are seldom well, and require appropriate remedies to combat such conditions as anemia, neurasthenia, dyspepsia, etc.

Modification of Bettelheim's Tapeworm Treatment.—BETTELHEIM seeks to modify his former treatment of tenia, which is briefly as follows: An elastic tube is introduced into the stomach, and through this is poured a decoction made from the bark of the root of pomegranate. The object to be attained in thus introducing the medicament is to avoid the taste and liability to vomit, and is especially to be recommended in treating children. Notwithstanding the use of this method emesis does occasionally occur. In order to obviate a possibility of this kind, he now advocates the administration of the tenifuge by means of keratinized pills, which are tasteless, and being insoluble in the gastric, and soluble in the intestinal secretions, their action is reserved for the latter region, the usual habitat of the tapeworm. For certainty of action and absence of all disagreeable effects, the author believes the keratinized pills are insuperable. The following formula is recommended:

℞—Extr. filic. mas. eth.
Extr. punic. granat. aa. 10.0
Pulv. jalapæ, 3.0
M—Ft. pil. keratinisat No. 70.

The gastro intestinal tract is prepared in the usual way for the reception of the pills. On the first day of the treatment nothing is eaten, and 15 to 20 pills are taken. On the second day the remainder of the pills are to be taken within the period of three hours.—*Centralblatt der Gesammte Medicin*, Nov. 12, 1887.

Treatment of Enlarged Spleen in Ague.—DR. D'ALLOCCO (*Rivista Clinica e terapeutica*), repeated the experiments of Fazio with regard to parenchymatous injections into the tumors, of sulphate of quinine. He concludes that such injections are not only inefficacious, but at times harmful. They occasion not only pain and pyrexia, but an increase in the size of the organ. Until more successful methods have been devised for the cure of splenic tumors, we should confine ourselves to local and general hydropathy—the internal use of quinine and parenchymatous injections of arsenic and ergotine.—*Bulletin Général de Thérapeutique*, Nov. 15, 1887.

Etiology of Pulmonary Emphysema and Nervous Asthma.—DR. SANDMANN, in this paper, shows the intimate relation existing between nasal stenosis and emphysema. It has been determined clinically, as well as by experiments on animals, that any narrowing of the air passage leads to emphysema. The nose, representing the beginning of the respiratory apparatus, is often the seat of stenosis, which is usually overlooked. In 25 cases of emphysema he has encountered nasal stenosis, due to various

causes, and after eradication of the same has observed complete recovery. He has also observed asthmatic attacks emanate from a nasal stenosis, which he readily subdued after rendering anesthetic and hyperesthetic the nasal mucous membrane. Good results can only be expected when a simple dilatation of the lung exists, unattended by atrophy of the alveolar septa.—*Wiener Med. Presse*, Nr. 44, 1887.

Lymphadenitis as a Symptom in Pulmonary Tuberculosis.—Prof. Grancher, in an important clinical lecture at the Hôpital des Enfants, Malades, called attention to two cases of axillary adenitis occurring in pulmonary tuberculosis. M. Toledo, his pupil, has sought by experimentation and clinical observation to trace more directly the relationship existing between the disease in question and the sympathetic swelling of the axillary lymphatic glands. M. Toledo concludes that axillary adenitis often accompanies phthisis, and when the former is observed, the lumps should be examined. The inflammation of the axillary glands may be isolated or accompanied by a like inflammation of the supra-clavicular, cervical or tracheo-bronchial lymphatic glands. According to the site of the adenitis, various types of pulmonary tuberculosis are deduced. Swelling of the supra-clavicular and cervical glands occurs when phthisis is readily diagnosed; whereas in swelling of the axillary glands alone, the disease is with difficulty diagnosed.—*L'Union Médicale*, Nov. 12, 1887

SOCIETY PROCEEDINGS.

San Francisco Society of German Physicians.

Regular Meeting Oct. 6, 1887.

The President, H. Ferrer, M. D., in the Chair.

Dr. J. F. Morse reported a case of luxation of the forearm. The luxation was sustained about eight months prior to the time patient consulted speaker. Reduction was not attempted at the time of injury. Patient entered County Hospital, where it was found that both bones of the forearm were dislocated backwards, together with atrophy of the muscles comprising the injured extremity. Reduction having been unsuccessfully attempted, recourse was had to resection of the elbow joint. It was discovered that there was a transverse fracture of the ulna under the olecranon, together with exostoses around the fracture. Good recovery.

Dr. A. Abrams demonstrated a specimen presented to him by Dr. Nief, the veterinary surgeon. It had the appearance of a parietal bone and was removed from the abdominal parietes of a sow. The only explanation for the presence of this bony formation must be attributed to the fact that when the sow was spayed, the abdominal incision healed badly, allowing a small part of the intestine to prolapse into the incision. A traumatic peritonitis was induced, attended by adhesions, which latter

eventually were infiltrated with calcareous salts. The specimen then, was not new bone formation, but simply a calcified plate; which supposition received confirmation on microscopical examination.

Dr. Aronstein requested the members present to detail their experience with antipyrine and antifebrine.

Dr. A. Wilhelm used antipyrine largely in hospital as well as private practice, and has never observed symptoms of collapse following its administration. He gives 1 gm. two or three times daily; but usually after the first dose, controls its further administration by the state of the bodily temperature. He has observed good results, not only in acute infectious diseases, but likewise in cases of sciatica. He recollected one case in particular, where antipyrine benefited an obstinate case of sciatica of malarial origin. The lancinating pains of tabes, readily yield to 1 gm. doses of antipyrine given at night. The diaphoresis usually attending the use of the drug must be looked upon as the premonitory symptom of collapse, and cautions its further administration. The remedy was also used in a a case of pertussis, with the best temporary effect. Recently he has used antifebrine considerably, with satisfactory results. In one case antifebrine, used continuously for two weeks, was followed by albuminuria; like results having been reported, he has now become more guarded in its continuous use.

Dr. H. Kreutzmann has had experience with this drug in Germany. In the case of a young man, he observed symptoms of collapse after the use of the drug. The speaker also referred to the undoubted hypnotic action of antipyrine, especially in children, many of the latter speaking of it as the "sleeping medicine." In a child, after taking antipyrine, the sleep lasted 24 hours. He asked members if they had any experience with the subcutaneous administration of the drug.

Dr. Morse had used it in this way with success in migraine.

The President had used antipyrine in a case of Ménière's disease; but as his experience in this respect was limited, he was unable to speak of its good effects.

Dr. Morse inquired the opinion of members with regard to the latest antiseptic, *creolin*. No one, however, had as yet employed it.

Dr. Kreutzmann demonstrated a portable apparatus for galvanocautery and electrical illumination, made by Reiniger, of Erlangen and New York. The apparatus is convenient, constant and comparatively inexpensive.

H. Kreutzmann, Secretary.

Sacramento Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

SACRAMENTO: JANUARY, 1888.

THE AMERICAN PHYSICIAN.

Recently, several communications have appeared in the journals, which seriously reflect on medical education and on the medical profession in the United States. That there is good ground for condemnation of educational matters, and that many legally qualified practitioners are wofully ignorant none will deny; but when sweeping statements are made and vague generalizations indulged in, injustice and misconception frequently result.

In the students' number of *Le Progrès Médical* occurs a description (*vide* p. 33) of medical facilities in this country, written in good faith and with an evident spirit of fairness, yet in many particulars wide of the truth. All that is stated regarding a low standard, laxity of regulations and want of preliminary education is often true, but the result or finished product is, despite these disadvantages, by no means what might be supposed from such haphazard teaching. Taking the question of primary qualification, the fact that it is not demanded in many cases, and in others in a perfunctory manner, stigmatized by our contemporary as a mere *certificat de grammaire* deserves condemnation, but it must not be lost sight of that the methods of instruction in this country differ essentially from those of the old world. Here the majority of candidates for professional life are educated in the public schools, where attention is mainly devoted to the practical subjects of every day modern life, to the comparative exclusion of the dead languages. The instruction is thorough, and it is absolutely impossible that any "doctor" who has been through our public schools would write the "Gem from the Congress," which the *Medical Press and Circular* (Nov. 16, 1887,) prints in its original orthography. These schools are attended by all classes in the community, and, therefore, differ materially from similar institutions elsewhere; and being justly regarded as a fundamental principle of the social economy of the State, this practice is en-

couraged and a uniform system of instruction obtains. If this be understood it will explain that absence of knowledge of the classics from which so many competent graduates admittedly suffer.

A correspondent of the *Medical Record* (Dec. 3, 1887,) writes with considerable feeling on the ignorance which he found existing on the continent of Europe respecting things American in general, and medical in particular, and he alludes to the low opinion which is universal as to the standing of the rank and file of the profession. Here, as in other cases, the profession is classified according to a few crude specimens, and as a consequence suffers thereby.

The evils which our French contemporary believes we labor under are patent to every observer, but their remedy is a difficult matter and will only be reached by the creation of a sentiment of intolerance amongst the profession and by the coöperation of the examining boards. It is difficult for those elsewhere to estimate the insuperable obstacles arising in the United States when a national enactment is sought in matters of this kind, which might be supposed to affect the rights of individual States. The constitution of our government is such that a measure of this nature would require a long period in which to educate the popular judgment; and in the slowness to act in this connection a better instance could not be cited than the absence of a national bankruptcy law, the want of which is admitted on every hand.

Medical education, the world over, is in urgent need of reform, and nowhere is it more necessary than where matriculation and graduation are hedged with every safeguard. The object of medical education should be to make a competent *practitioner*, and provide that much should not depend, as at present, on the student's taste and inclination. The lines between elementary or theoretical studies and practical work should be strictly drawn, and in no case should the student be permitted to advance until the groundwork is well and securely laid. Examinations should be frequent, and the subjects limited, for it is a grave mistake and an injustice to compel a candidate to carry a number of studies through several years, when the modes of preparation are essentially different or conflicting. Finally the opportunities for practical work and clinical instruction should be greatly increased and the period of study in this most necessary department might be profitably extended.

We do not wish to appear as apologists for the American physician; he needs none. Notwithstanding his many disadvantages, as a class he is quite equal to the average practitioner of other lands in his professional attainments; as a rule he surpasses them in his greater self-reliance and in more venturesome and daring practice. This fact is probably due to the existence of a widely distributed population, which over great stretches of country does not congregate in towns of any considerable size. The physician must, therefore, in the absence of the grade of specialist or consultant rely on himself, and in this he is supported by the public, who, usually, will readily allow the local practitioner to do anything which he desires to attempt.

The question of medical education is one which California can well afford to discuss dispassionately. Her facilities are excellent, material of every kind is abundant, and there is no reason why a student should not here receive an education equal to that of any teaching centre. As for our western standard of the three regular schools in the State, the two senior colleges were amongst the first on this side of the Atlantic to adopt the three years course, and the recently organized Medical Department of the University of Southern California, *ab initio*, demanded this requirement. We hope that they will again be amongst the first in adding another year.

VOLUME II.

In presenting the initial number of the second volume to our readers, we desire to briefly mention the important features in which it differs from its predecessors. The type has been changed throughout, and while improved by the new dress, it is hoped that none of its original clearness has been sacrificed, and that the change in paper will materially aid in maintaining its reputation in this direction. The change in typography, with the additional pages, has actually increased the reading matter by one-third, while the quality has been improved by the increase of original matter and by more varied and extensive translations. Our staff has been strengthened by the addition of Dr. W. R. Cluness, of Sacramento, and Drs. W. Watt Kerr and Albert Abrams, of San Francisco, whose names are already familiar to the profession on this coast, and we feel that their active collaboration will be a valued factor during the coming year. The Society proceedings will be more ample than

heretofore, and with the Hospital Reports, will, we believe, truthfully reflect the progress of medicine on this coast. Arrangements are being perfected by which we hope to present from time to time the views of leaders in the profession elsewhere, and we shall endeavor, by a liberal expenditure of time and money, to keep this journal in the van of medical literature. The word Sacramento is retained in the title, but, as we originally stated, medical matters anywhere on the Pacific Coast will receive our prompt attention, and we shall, during the year, allow nothing of professional interest elsewhere to pass unnoticed. We shall endeavor to merit the continued respect of our readers, and we can assure them that, as we feel justified, we shall make THE TIMES more valuable to them.

NOTES.

Climate of Santa Barbara.

Our correspondent at Santa Barbara has directed attention to a singular inaccuracy contained in an article on the Health Resorts of Three Continents, by Mr. Wm. Smith Brown (*Harper's Magazine*, November, 1887), in which the author states that Santa Barbara is unsuitable in many cases, owing to the prevalence of high winds and the frequency of fogs. One is at first at a loss to understand the cause of this singular mistake; but, on reading the article, we find at the outset that the author states that his information regarding some localities has been derived from hearsay. This is an obvious instance in which he has been grossly imposed on, as everyone acquainted with Santa Barbara is aware that its freedom from the prevailing coast winds is remarkable. Mr. Vail, whose residence at Santa Barbara for many years—during which time he has been a careful and accurate meteorologist—entitles his opinion to respect, says "there are few, if any, places, in this country less windy, or at which the atmospheric movement is so small."

The Tenth International Congress.

Berlin has been selected as the city in which the next Congress shall assemble, and already discontent has broken out in professional ranks. The French consider that they have been slighted in this selection, and some of our exchanges adopt a very unconciliatory tone in commenting on the supposed affront, which they believe to be all the deeper when the great friendliness of their country to the United States is remembered. We are satisfied that the choice of the German capital was made after due deliberation, and

it is to be most earnestly hoped that long before the date of meeting things will be once more harmonious. The United States has set an example in this matter which all malcontents will do well to take to heart. It has been shown that the withdrawal of a body of men, however eminent, will not prevent the Congress from being held, though it detracts in a greater or less degree from the brilliancy of the assemblage. The Tenth Congress would be less brilliant for the absence of those clinicians who have made the name of France famous in medicine, and we trust that long before 1890 the chivalrous spirit of the nation will have triumphed over such petty jealousies.

Contemporaneous Opinion of Medical Education in America.

In its "Students Number" *Le Progrès Médical* describes in general terms the condition of medical education in this country. Medical schools in the United States are independent. The different States take no interest in promoting superior instruction. Individual initiative starts the schools, the only object being the manufacture of doctors, lawyers and engineers, etc. The State does not interfere further than to enter on the official register the diplomas which are presented. The administration never refuses this formality. Nevertheless, within recent years, certain Boards of Health have been sufficiently severe regarding some diplomas obtained after a rather irregular fashion. The students, abandoned by the State, are attracted in crowds by the free medical schools. There is at least one in all the principal towns in the United States, whilst the large cities, such as New York, Philadelphia, Boston, Chicago and San Francisco each have three or four schools, not to speak of the Homeopathic schools, the Eclectic schools, and the schools for women. These schools are generally attached to a hospital, which furnishes sufficient clinical material. The studies comprise anatomy, physiology, pathological anatomy, medical chemistry, and a host of specialties and accessory sciences. The programme appears to be very complete, but it is only a mirage, and in spite of appearances the organization of these schools is still very rudimentary. There are no conditions of admission, or they are reduced to a mere elementary certificate (*certificat de grammaire*). The final examinations offer but little guarantee of fitness. These conditions are ascribed to the fact that the student wants to get the most for his time and money, and consequently addresses himself to the school which offers the greatest advantages. The low standard of examination and general laxity is stated to be due to the competition between

schools compelled to support themselves by the revenues derived from their classes, the members of which would leave the school which was strict, in favor of its laxer rival. It is regretted that of the number of Americans who cross the Atlantic but few make their headquarters in Paris. Vienna is the favorite destination, and the greater advantages in the concentration of material, and in the practical instruction given in the numerous polyclinics, is admitted. It is acknowledged that there are excellent schools in the United States, and some of these are mentioned. The conclusions of the journal are that the organization of medical studies in this country is still very imperfect and very rudimentary. It is not intended to include everything in this criticism, and there are mentioned as worthy of imitation, the methodical distribution of the day's study, the weekly repetitions (quizzes), under the direction of the assistant professors, and the six weeks' course for doctors desirous of increasing their scientific attainments.

Disposal of Sewage.

According to the *British Medical Journal* the town of Luton has recently enlarged its sewage farm, the working expense of which has been very low, and the general result in every way satisfactory. At a meeting of the Association of Municipal and Sanitary Engineers and Surveyors, Major Fowler stated that he had come to the conclusion that the soil was the only efficient purifier of sewage. Luton, with a population of 30,000, is in some respects a test case, as the affluent is very deeply stained owing to the refuse from the straw plait dying works; yet the whole of the sewage is efficiently and cheaply disposed of on 70 acres of land. This is of special interest to Sacramento as the population is about the same and the sewage in our case perhaps less difficult to deal with.

Cultivation Experiments with Malignant New Growths

These researches, which were under the auspices of the Scientific Grants Committee of the British Medical Association, were for the purpose of determining "whether malignant new growths, which have so many and such close analogies to the infective granulomata, have a similar micro-parasitic pathology." So far the experiments "have established the fact that no micro-organisms admit of being cultivated from malignant new growths on any of the chief media at present in general use." Experiments were made with healthy tissue for the purpose of determining the possibility of keeping them sterile. The results of these experiments are tabulated as follows: With healthy tissues, muscle,

testicle, kidney, sub-maxillary gland, and liver, fifty pieces were employed, the cultivating media were serum, agar, and gelatine. All these pieces remained sterile after incubation for various periods of from one to 20 days at 100° F., and were apparently unchanged for months. With tumors represented by scirrhus, lipoma, myxoma and sarcoma, fifty-eight pieces were employed. They were kept in the incubator for 33 days and remained sterile, being still in that condition some months later when removed from the tubes for microscopic purposes. Strict precautions were observed, but no antiseptics were used. Although these experiments have given negative results, the observers "hold, nevertheless, that the parasitic theory, in some form or other, is the most probable of any of those yet advanced."

Novel Treatment for Hemorrhoids.

An amusing incident occurred a short time since in one of the northern counties of the State, whereby a granger accidentally discovered an efficient remedy for protruding piles. It seems that "hog killing" time was at hand, and the granger was cutting up and putting his meat into salt. He had just prepared the mixture with a plentiful supply of black and cayenne pepper, which he had thoroughly mixed together with his hands. Suffering badly from protruding piles, he went into the house and adjusted the offending members without washing his hands. Scarcely had he done so before the cayenne pepper took vigorous hold of the delicate parts, producing reflex contortions, which can be better imagined than described. He says, however, that the piles have not bothered him since, and he is prepared to bet that it will prove an efficacious remedy for the worst cases, if the patient has only the temerity to try it.

A National Quarantine System.

Referring to the recent outbreak of yellow fever at Key West, due to the importation of some bedding which had been infected with the disease in Havanna, the *N. O. Medical and Surgical Journal* says: "What Florida wants, and what other States should insist that she have too, is a Board of Health, with absolute jurisdiction over all matters of other than purely local value, and with sufficient resources properly to equip quarantine stations at such points as must be kept open in seasons of danger." The point is a good one, especially where the interest of States, even widely removed, is insisted on, and it brings up the whole question of quarantine or medical inspection and isolation, which is really not a State, but a national matter. This aspect of the case has been

already put forward, and it would seem that the opportunity is a good one to discuss the subject generally. In these days of free communication and rapid transit the interest of the State exposed to immediate infection is hardly greater than that one which may next receive the disease. The State and local Boards of Health have usually enough to occupy their attention, and the matter is one which demands concerted action, such as is only attainable through a central authority. This country is not at present in a condition to dispense with quarantine, and for many years to come efficient inspection at her outposts will be the sole reliance from pestilential invasion. The increasing commerce and rapid development of the country multiplies the possible means of contamination, so that it is no longer necessary to guard the principal seaports, but many lesser ones, as well as the railways leading from adjoining territory. The proper care of these approaches can in no way be so efficiently and economically guarded as by a central authority ever vigilant and fully provided with the requisite material.

Sanitary Defences at New Orleans.

When reading the report of the committee of the College of Physicians of Philadelphia, published as an extra by the *Medical News*, on maritime quarantine at New York, Philadelphia and Baltimore, we were surprised to learn that the committee, from published official descriptions, had no reason to believe that the conditions of the other ports of entry upon the Atlantic and Gulf coasts are in any respect superior. Anyone who is familiar with the description of the admirable arrangements existing at the mouth of the Mississippi, which was published some years ago, will not be surprised at the vigorous protest of the *New Orleans Medical and Surgical Journal* in its December issue. We have a vivid recollection of quarantine at New York, and of the process of disinfecting a ship for supposed infection from yellow fever, and we are ignorant of anything more preposterous than the method employed. It is a very difficult matter to thoroughly purify a ship, but if the necessity for this arises the means should be adequate and the process effective.

Successful Laparotomy after Extensive Injury to the Intestines.

It was an aphorism of Professor Gross that every case in which fecal extravasation into the abdominal cavity had occurred was inevitably fatal. Dr. A. S. Priddy reports a case (*Journal American Medical Association*) which seems to prove an exception. A negro, aged 60 years, was shot with a 32-calibre pistol at a dis-

tance of six or eight feet, one of the bullets entering the abdomen about half an inch below the anterior superior spine of the ilium. The wounded man "ran to the stables, mounted a horse and rode into town (Chase City, Va., distant four miles), to get a doctor to cut the balls out." He was placed under appropriate treatment, but the operation was not performed until four days later, when the abdominal symptoms and the passage of a considerable quantity of blood in the stools, proved beyond doubt the question of intestinal penetration. The operation was performed in a negro cabin, but every reasonable antiseptic precaution appears to have been taken. "On opening the peritoneum a considerable quantity of bloody serum, pus, etc., escaped from its cavity, all of which had a distinct and disagreeable fecal odor, yet there was only a trace of fecal matter in the cavity." In addition to a contusion of the mesentery and a perforation of the meso-colon, the descending colon was "found to be lacerated longitudinally for more than six inches, extending into the sigmoid flexure." The operator states that he passed his hand through the wound and into the rectum. The operation, which lasted fifty-five minutes, was completed. The lacerated part being united with catgut suture, "improvised by soaking a fiddle string in water the night before, and then soaking a while in carbolized oil." Six weeks after the accident—which is the latest date recorded—the patient was doing well; he can, therefore, certainly be said to have recovered from the effects of the operation. This success, under very unfavorable surroundings, and after a grave injury, emphasizes the fact that the average American practitioner will as a rule attempt anything; and it is this quality of self-reliance, coupled with a certain natural ingenuity and a facile adaptation to circumstances, which enables him often to triumph in the face of grave difficulties.

SPECIAL CORRESPONDENCE.

LONDON

[FROM OUR OWN CORRESPONDENT.]

Sir James Paget on Cancer and its Treatment.—Cholecystotomy.—Thoracic Surgery.—"Fecal Anæmia."—Treatment of Whooping Cough by Insufflations.—Tea and Theine.—Royal College of Surgeons, its Fellows and its Members.—"The Senate of Physicians and Surgeons."—"The Wife's Handbook."—Sir William Gull.—The British Medical Association.—The Crown Prince.—Mr. Lawson Tait as a Professor.

Sir James Paget recently expressed an opinion at the Pathological Society in such decided terms, that it was really a comfort to hear it in these days, when compromise and qualification are so popular. Mr. Jonathan

Hutchinson, Jr., had shown a specimen of cancer invading an adenoma of the breast, and ventured to suggest that it was doubtful wisdom to leave adenomata untreated. Sir James Paget, as I have said, expressed the very decided opinion that adenomata of the breast ought to be excised; he had never seen one of those tumors disappear; they were a constant source of discomfort and anxiety, and often of pain; he had seen a good many cases in which they were succeeded by fibro cystic tumors, which grew rapidly and recurred quickly after removal, and ultimately it had been shown that they might become the seat of scirrhous disease. Finally, it was imprudent, he said with unusual emphasis, not to advise the removal of adenomata of the breast. Sir James Paget's opinion is peculiarly valuable, because he has had a more extensive experience in tumors than probably any living surgeon. In addition to his early training in the Museum of the College of Surgeons and the wards of St. Bartholomew's Hospital, he has for many years, perhaps a quarter of a century, seen nearly every case of supposed cancer of external organs which has come to London for consultation; that is to say, almost every well to do person afflicted with these diseases. His Morton Lecture, before the Royal College of Surgeons, on Cancer and Cancerous Diseases, was a most suggestive review of the present state of our knowledge of the relation of these diseases to certain other, not distantly related, classes. These are (1) the class of benign, simple or innocent tumors; and (2) the class of diseases which comprises syphilis, tuberculosis and glanders, leprosy and actinomycosis. For this class of diseases Virchow formed a separate division and placed them under the name of granulomata among the tumors. All of this class depended, he said, on a micro parasite, and all agreed in being self-maintaining morbid growths. They differ from one another in that each has a definite, characteristic and diagnostic method of growing, as shown in its shape and in its substance, both tangible and microscopic, and in its relations to the structures which it involves. In these respects they differ from one another about as much as any of them do from cancer, and cancer, though it had never been inoculated, was yet in its manner of spreading through the body, clearly infective. Sir James Paget argued against the local origin of cancer, which was for him always a blood disease, with local manifestations; there was no departure from analogy in thus believing, for all or nearly all blood diseases had their local manifestations: a local injury or long continued irritation may make a part susceptible or apt for the manifestation of the specific morbid change. He traced the analogies between cancer and the infective diseases of the class above mentioned with rare skill and characteristic eloquence, and finally he broached the question: Granted this strong resemblance, can we reasonably hope for a remedy against cancer as potent as mercury against syphilis? And his answer was: Yes, and the more so if we may count cancer among the specific diseases; for it is of some of these that we most surely have remedies more nearly complete than we have of any other disease whatever. The name commonly used of specific medicines may tell this. There are none so definitely useful against diseases of any other kind.

Mr. Knowsley Thornton recently reported to the Medical Society of London two cases, in which he had removed gall-stones from the ductus

cholelochus communis. It would appear that this procedure is much more difficult and dangerous than the removal of a stone from the cystic duct. In one of the cases the removal took an hour and a half, the whole operation taking considerably longer, as there was some difficulty in finding the gall bladder, which was atrophied and surrounded by adherent omentum. Owing to the shrunken state of the gall bladder, Mr. Thornton sutured it carefully and dropped it into the abdominal cavity, and introduced two drainage tubes, one through the wound in the hypochondrium, the other through a special incision just above the pubis. These tubes had to be retained for six days, and Mr. Thornton formed the opinion that it would be less dangerous to remove the gall bladder. In the other case the gall bladder was sutured to the parietal wound, and continued to discharge large quantities of very offensive bilious fluid as long as the drainage tube was retained in it. This fact showed that if the gall bladder were sutured and dropped into the abdominal cavity, the strain on the stitches would probably be very great, and that it would, therefore, be advisable if this practice were followed, which, as above said, he does not advise, to provide free drainage of the peritoneum until all danger of such escape was passed.

Mr. C. G. Wheelhouse, of Leeds, in a recent lecture to the post-graduate class on the surgical treatment of diseases of the chest, recommended aspiration in the treatment of intra-pericardial effusion, and gave the following directions: After carefully mopping out the area of dulness, insert the trochar on the upper surface of the fourth rib, to the left of the sternum, advance it steadily upwards, and from left to right, until the impulse of the heart can be felt; withdraw the trochar, leaving the cannula in position. In opening the chest for empyema, he observed that the outlet should be at the lowest and most dependent spot attainable when the chest is in the recumbent position; he considers that the eighth interspace is the best. With the arm at the side, a line is dropped perpendicularly from the angle of the scapula, and the incision made in this line at the eighth interspace, which is about one inch below the angle of the scapula in the adult. He recommends that the finger should be freely introduced, and if it is then found that drainage could be better maintained lower down, he makes a second opening in the next interspace. The first incision heals under antiseptics in a few days.

Sir Andrew Clark recently read a paper on chlorosis, which he attributed to chronic constipation with absorption of poisonous bodies (ptomaines, etc.) from the bowels. He says that it is easy to cure the cases rapidly by regulating the diet and giving tonic aperients to produce full and regular evacuations. DIET: *Breakfast*, 8 to 9 A. M.—Whole meal bread and butter, with eggs, or broiled fish, or a chicken's wing, with half a pint of milk and tea (equal parts) towards the end of the meal. *Dinner*, 1 to 2 P. M.—Fresh tender meat, bread, potatoes, green vegetables well boiled, simple farinaceous pudding or cooked fruit (apple for choice), one glass of burgundy with or without water. *Tea*, 4 to 5 P. M.—Whole meal bread and butter, with a cup of tea and milk (equal parts). *Supper*, 7 to 8 P. M.—Same as dinner, but less in quantity. No food after this. On first waking in the morning, a quarter of a pint of cold water is to be sipped. Tepid sponge bath, followed by brisk towelling, night and

morning. One of two old-fashioned ferruginous cathartics are given, according as the acid or the alkaline mixture suits best:

The Acid Mixture:

℞ Ferri Sulph. gr. xxiv.
Magnes. Sulph. ℥vi.
Acid. Sulph. Aromat. ℥i.
Tinct. Zingiberis, ℥ii.
Inf. Gentian. Co. (*vel* Quassia), ℥viii.

The Alkaline Mixture:

℞ Ferri Sulph. gr. xxiv.
Sodii Bicarb. ℥ii.
Sodii Sulph. ℥vi.
Spiritus Chloroformi, ℥i.
Tinct. Zingiberis, ℥ii.
Inf. Quassiæ, ℥viii.

One-sixth part of one or other of these mixtures is taken twice a day, at 11 A. M. and 6 P. M. If neither agree, he prescribes sulphate of iron, in pills, with meals, and a saline aperient on first waking in the morning. When health is restored (in from one to three months), he gives an aloes, myrrh and iron pill once or twice a week. The treatment succeeds where iron, arsenic and manganese, without the aperients, fail.

The treatment of whooping cough by local applications to the upper air passages appears to be growing in favor. Dr. W. H. Barlow, as is well known, warmly adopted the suggestion of Professor Moncorvo to use Resorcin in a weak solution (1 per cent.) as a local application to the nasopharynx. Dr. Guerder, of Paris, starting from the theory that the disease was due to a reflex irritation produced by some specific microorganism infesting the nasal mucous membrane, recommended nasal insufflations of a very fine powder consisting of equal parts of boric acid and coffee, taking care that the powder was insufflated in a thorough manner so as to reach a wide surface; the insufflation was performed night and morning, and improvement was, as a rule, noticed within two days; recovery was almost complete in a fortnight. In some cases, where the treatment was commenced early during the catarrhal stage, the disease appeared to be abated. Dr. George Holloway has recently repeated and confirmed Dr. Guerder's observations, and has invented a special form of insufflator; it consists of a glass tube bent to the shape of the crank of a grindstone, with a wide nozzle at one end and provided with an elastic ball at the other; the powder is introduced into the insufflator through an opening in the side; the opening is covered by the thumb, and by compressing the ball the powder is blown into the nose. Dr. George Halloway uses two to three grains of finely powdered boric acid, which is insufflated every three hours during the day and once during the night.

The dose of theine given in the *British Pharmacopœia* is 1 to 5 grains. It is "an alkaloid usually obtained from the dried leaves of *Camellia Thea*." The dried leaves of this shrub are the tea of the shops, and two pharmaceutical investigators have recently found that every average cup of tea contains at least 1 grain of theine. Now, this alkaloid is colorless, has no odor and only a faintly bitter taste; as the commercial value of tea depends upon its fragrance, color and strength, it does not seem probable that the amount of theine can have have much influence on it. Messrs. Paul and Cowley, the investigators referred to, confirm this opinion, for they found that the amount of theine in the dearest tea is only a little greater than the quantity in the cheapest; they also found that the strength of tea had nothing to do with the proportion of theine. The fragrance of

tea depends on aromatic bodies as yet unisolated, and its strength on astringent bodies allied to tannin; it would be possible, if it were worth while, to prepare a cup of strong and fragrant tea which contained little or no theine; the drinking of such tea would perhaps be useful in the treatment of neurasthenia dependent upon or kept up by excessive tea drinking.

The meeting at the Royal College of Surgeons last month was not marked by any new departure in the policy of the Council. Mr. Timothy Holmes moved a resolution to the effect that Members of the College ought to have the privilege of voting for members of Council, and, under certain restrictions as to standing, of being elected to the Council, and that no alteration in the Constitution of the College should be made without the consent of the fellows and members, given at a meeting summoned for the purpose. The Council, however, had decided beforehand, by a majority of votes, not only not to accede to these requests, but to oppose them actively. The Council, it ought to be said, have been compelled by circumstances to go to the Privy Council for a revised Charter, and this has given the fellows and members a *locus standi* before the Privy Council—a body which, though not consisting of lawyers, has a strongly forensic Constitution. A few days after this meeting at the College the Associations of Fellows and of Members of the College of Surgeons sent each a deputation to lay their grievances before the Lord President of the Privy Council, and to oppose the granting of the revised Charter. The result will probably not be known for some time, but if is unfavorable to the fellows and members the agitation will go on, and in the end will almost certainly succeed. It is greatly to be regretted that the majority of the Council of the College of Surgeons do not recognize this, and put an end, by reasonable concessions, to an agitation which is causing a lamentable waste of time, energy and money, which might be devoted to more useful purposes.

The Royal College of Physicians in London and the Royal College of Surgeons in England used until recently each to give a diploma which qualified the holder to registration, and thus either gave the right to practise medicine and surgery in Great Britain and Ireland. The two colleges have now formed a Conjoint Board, and neither diploma is granted until the candidate has passed the examination prescribed by the Conjoint Board. A further step has now been taken, the Conjoint Board having applied for a Charter creating it a "Senate of Physicians and Surgeons," empowered to grant the degrees of Bachelor of Medicine and Surgery and Doctor of Medicine. The application will be hotly opposed by the existing universities, especially those established in Scotland, and it would seem that the diplomates of the two colleges who would be beneficiaries under the scheme are not quite satisfied with it because it gives them no share in the management of the Senate, which would be composed of the Councils of the two Colleges, which are elected on a very narrow franchise.

The winter session of the General Medical Council has just concluded; it was chiefly occupied with disciplinary measures. The case which excited most interest was that of Mr. Henry Arthur Allbutt—who must not be confused with Dr. T. Clifford Allbutt, F. R. S., the well known and

respected physician of Leeds. Mr. H. A. Allbutt also lives in Leeds, and in the same square; and it is said that some curious instances of misdirection of letters have recently occurred. Mr. H. A. Allbutt recently published a pamphlet entitled *The Wife's Hand-book*; a committee of the General Medical Council, appointed to investigate the charges made, reported that the pamphlet was extensively sold, and that besides containing much that was offensive to taste and professionally objectionable, it taught how sexual intercourse might be indulged in without fear of pregnancy supervening; though it did not distinctly recommend that kind of indulgence unless avoidance of pregnancy was advised by the "doctor." The pamphlet was sold at a low price, and contained certain advertisements which it would appear were admitted to have been improper. Mr. Allbutt was represented by a Scotch barrister, who made a very long and ineffective speech, and the Council decided that to publish such a book at so low a price as to bring it within the reach of the youth of both sexes was detrimental to public morals, and therefore was "infamous conduct in a professional sense." Consequently, Mr. Allbutt's name was erased from the "Medical Register," and he is no longer a person qualified to practise medicine in the United Kingdom.

Sir William Gull has had an attack of right hemiplegia, with partial aphasia. He has improved a great deal, and has been able to return to London from Scotland, where the seizure occurred; but it is not probable that he will be able to resume practice.

At the next meeting of the British Medical Association, which will be held in Glasgow on August 7th, 8th, 9th and 10th, Dr. W. T. Gairdner, Reguis Professor of Medicine in the University of Glasgow, will preside. There will be two addresses on Surgery—one by Sir George Macleod, the Reguis Professor of Surgery, the other by Dr. William Macewen. The address on Medicine will be delivered by Dr. Clifford Allbutt, of Leeds, and Professor J. G. McKendrick, of Glasgow, will give an address in Physiology.

The illness of the Crown Prince is so much a matter of international importance, that full particulars are, no doubt, telegraphed to your daily papers, and it can hardly be necessary to refer to it further than to say that when the swelling below the vocal cords, which is considered to be malignant, first began to appear it was believed to be due to perichondritis, and that this diagnosis was proved to have been at least partially correct by the bursting of the abscess mentioned in the telegrams. The diagnosis of malignant disease is now generally accepted, but there are whispers that some of the laryngologists who have attended the Prince are not yet quite satisfied. All sorts and conditions of men have been writing to Sir Morell Mackenzie and the Crown Prince and Princess, suggesting certain cures for cancer. The illustrious patient has been strongly urged to submit himself to Count Mattei's treatment, and inquiries have been made as to certain alleged cures, but it is understood that in no case have these resulted favorably. Mr. Clay, Professor of Midwifery at Queen's College, Birmingham, has published some more cases of alleged recovery from epithelioma of the tongue and of the womb, under the use of chian turpentine. Mr. Jonathan Hutchinson is said to have made the diagnosis in the case of the epithelioma of the tongue, and Mr. Knowsley Thornton

in the two cases of epithelioma of the uterus, but neither of these two eminent surgeons have as yet stated publicly that they made the diagnoses assigned to them.

The mention of Professor Clay's name reminds me that the authorities of Queen's College, Birmingham, have separated Obstetrics and Gynecology, and have created a new Chair of Gynecology, to which Mr. Lawson Tait has been appointed. This is, I believe, Mr. Tait's first teaching appointment.

LONDON, December 6, 1887.

REVIEWS AND NOTICES.

Lomb Prize Essays. American Public Health Association. No. 1. Healthy Homes and Foods for the Working Classes. By Victor C. Vaughan.

No. 2. The Sanitary Conditions and Necessities of School Houses and School Life. By D. F. Lincoln.

No. 3. Disinfection and Individual Prophylaxis against Infectious Diseases. By George M. Sternberg.

No. 4. The Preventable Causes of Disease, Injury and Death in American Manufactories and Workshops, and the best Means and Appliances for Preventing and Avoiding them. By Geo. W. Ireland.

These essays, which are on practical subjects and are written by men of acknowledged authority, have been, through the medium of the American Public Health Association, offered for sale at cost. This step was taken with a view to bringing them before the public and inducing a wider circulation. The subjects treated are most important, and the information is conveyed in a style which can be comprehended by any reader of average intelligence. The four essays are published in pamphlet form, and can be had for 30 cents. All orders and communications should be addressed to Dr. Irving A. Watson, Concord, N. H.

Cyclopedia of Obstetrics and Gynecology. Continued. Volumes VI and VII. A Hand-book of General and Operative Gynecology. By Dr. A. Hegar, Professor of Obstetrics and Gynecology, etc., at the University of Freiburg, and Dr. A. Kattenbach, Professor of Gynecology and Obstetrics, etc., at the University of Giessen. New York: Wm. Wood & Co.

This classical hand-book covers the field of operative gynecology in a thoroughly satisfactory manner. In Chapter I of the first volume Hegar presents a description of the methods and the instruments of gynecological examinations, in which Sim's speculum and Sim's position do not receive the place that national pride, not to say vanity, would assign to them. In Chapter II he describes the elementary operations—vaginal and uterine injections, the application of pessaries, etc., etc.; and in Chapter III Kattenbach takes up the subject of ovariotomy and Hegar castration.

Volume II deals with operations on the tubes (Hegar); operations on the uterus, on the broad ligaments, on the vagina, in urinary fistulæ (Kattenbach); operations for the cure of prolapse of the vagina and uterus

and for the restoration of the vaginal sphincter apparatus (Hegar), and operations on the vulva and perineum (Kattenbach).

Hegar's name is permanently identified with several of these operations—notably, with removal of the tubes and of the healthy ovaries. His first castration, as he prefers to call it, antedates that of Battey by twenty-one days. The translation is excellent. In truth, the work is not merely translated, it is Anglicised—an advantage that will be appreciated by those who do not care to read English in a German livery. We confess to being of that number.

BOOKS AND PAMPHLETS RECEIVED.

Supra-pubic Lithotomy. A historical sketch. By Charles W. Dulles, M. D., Surgeon to the Outpatient Department in the Hospital of the University of Pennsylvania, and in the Presbyterian Hospital in Philadelphia, etc. [Reprinted from the Transactions of the Medical Society of the State of Pennsylvania for 1887.]

Climate and Health Resorts of California. By J. W. Robertson, B. A., M. D., Assistant Physician and Pathologist Napa Insane Asylum. [Reprinted from the Journal of the American Medical Association, October 29th, 1887.]

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States, for the fiscal year 1887. Washington: Government Printing Office.

The Modern Distrust of Insane Asylums. An address delivered at the graduating exercises of the Medical Department of the University of California, November 15th, 1887. By W. H. Mays, M. D., Professor of Mental Diseases University of California, Superintendent Stockton State Insane Asylum. San Francisco: C. A. Murdock & Co.

De l'Électricité comme Agent Thérapeutique en Gynécologie—Electricity as a Therapeutical Agent in Gynecology. By Paul J. Mundé, M. D., Professor of Gynecology at the New York Polyclinic, etc. Translated and annotated ay Dr. P. Ménière, Professor of Gynecology, etc. Paris: Octave Doin. 1887.

Licentiates of the Board of Examiners.

At the regular meeting of the Board of Examiners, held November 2d, 1887, the following physicians were granted certificates to practise medicine and surgery in the State:

M. L. Arthur, San Diego, M. Dep. Univ. of Iowa; Iowa, Mar. 3, '86.
John K. Carson, Los Angeles, Missouri M. Coll., Mo., Mar. 6, '83.
Thos. J. Eaton, Chico; Univ. of New York, N. Y., Mar. 3, '59.
Francis M. Featherston, Fresno; Louisville M. Coll., Ky., Feb. 27, '74.
Geo. H. Flett, Berryvale; Jefferson M. Coll., Penn., Mar. 29, '84.
Francis Gallagher, S. F.; Yale M. Coll., Conn., July 26, '64.
Edmond Goldman, San Jose; Bellevue Hosp. M. Coll., N. Y., Mar. 5, '63.
C. Woodville Helm, Hildreth; Missouri M. Coll., Mo., Mar. 2, '86.
W. B. De Jarnetto, San Diego; St. Louis M. Coll., Mo., Mar. 9, '71.
Wm. J. Maynard, San Francisco; Rush M. Coll., Ill., Feb. 5, '68.
Otto M. Schultz, Los Angeles; Tulane Univ., New Orleans, La. Mar. 30, '87.
Fannie E. Williams, Los Angeles; State Univ. of Iowa, Mar. 1, '76.

At the regular meeting held December 7th, 1887, the following were granted certificates:

Russell D. Adams, Los. Angeles: Long Island Coll. Hosp., N. Y., July 30, '64.
L. F. Alvarez, San Francisco, Cooper M. Coll., Cal., Nov. 17, '87.

Chas. Dexter Ball, Santa Ana; Bishops Coll., Province of Quebec, Canada, April 3, '84.
Alfred R. Brandon, S. F.; Cooper M. Coll., Cal., Nov. 17, '87.
Wm. B. Brengle, Los Angeles; Rush M. Coll., Ill., Mar. 4, '75.
James P. Booth, Needles; Galveston M. Coll., Texas, Mar. 2, '71.
Katharine H. Brandt, San Luis Obispo; Women's M. Coll. of Penn., Mar. 17, '87.
Owen Buckland, San Francisco; Cooper M. Coll., Cal., Nov. 7, '87.
Fred. Pope Clark, Stockton; Cooper M. Coll., Cal., Nov. 17, '87.
Channing H. Cook, S. F.; Cooper M. Coll., Cal., Nov. 17, '87.
Wm. Henry Cope, Oakland; Cooper M. Coll., Cal., Nov. 17, '87.
E. A. Dial, Orange, Los Angeles; Louisville M. Coll., Ky., Feb. 25, '86.
Chas. Atkinson Dozier, Rio Vista; Cooper M. Coll., Cal., Nov. 17, '87.
Wm. H. Dukeman, Los Angeles, Univ., city of New York, Feb. 17, '80.
Fred. W. D. Evelyn, S. F.; Univ. of Edinburgh, Scotland, Aug. 2, '86.
Chas. Taget, San Bernardino; Faculty of Medicine of Paris, France, Aug. 7, '80.
S. T. Ferguson, Santa Barbara; Rush M. Coll., Ill., Jan. 25, '65.
Michael I. Foltrell, S. F.; M. Dep. Univ. of Cal., Nov. 15, '87.
Henry H. Fooline, Los Angeles; Beaumont Hosp. M. Coll., Mo., Mar. 1, '87.
George Kennedy Frink, S. F.; Cooper M. Coll., Cal., Nov. 17, '87.
John Woodburn Gibson, S. F.; Cooper M. Coll., Cal., Nov. 17, '87.
J. M. Harris, Los Angeles; Univ. of Louisville, Ky., Feb. 25, '87.
Henry L. Johnson, Oakland; Cooper M. Coll., Cal., Nov. 17, '87.
Fredrick Kirchhoffer, S. F.; M. Dep. Univ. of Cal., Nov. 15, '87.
Richard J. Mohr, South Pasadena; M. Dep. Iowa State Univ. Iowa, Feb. 21, '61.
Richard Murphy, Pasadena; Univ. of Michigan, Mich., Mar. 28, '75.
William Casper Parker, Los Angeles; Stirling M. Coll., Columbus, Ohio, Feb. 26, '69.
William C. Payne, Pasadena; M. Dep. West. Res. Coll., O., Mar. 2, '53.
Stephen T. W. Potter, Orange; Coll. Phys. and Surgs., Keokuk, Iowa, Feb. 14, '78.
Denis Francis Ragan, S. F.; Cooper M. Coll., Cal., Nov. 17, '87.
L. Redmon, San Francisco; Rush M. Coll., Ill., Feb. 25, '65.
John Mack Reid, Woodland; Cooper M. Coll., Cal., Nov. 17, '87.
Rufus Lee Rigdon, S. F.; Cooper M. Coll., Cal., Nov. 17, '87.
Nicholas Russell, S. F.; Univ. of Bucharest, Romania, June 14, '77.
Leocadie Russell, S. F.; Univ. of Bern, Switzerland, Mar. 12, '79.
Hugo Senftleben, San Luis Obispo; Univ. of Königsberg, Chili, Aug. 9, '85.
John H. Sheets, Susanville; M. Dep. Univ. of Cal., Nov. 7, '81.
Dudley W. Stewart, Los Angeles; M. Dep. Lind Univ., Ill., Mar. 4, '61.
Chas. J. Wharry, Alameda; Royal Coll. of Surgs., Eng., Apr. 18, '71.
James M. Wheat, Colton; Albany M. Coll., N. Y., May 31, '53.
Robt. B. Williams, S. F.; M. Dep. Univ. of Cal., Nov. 15, '87.
Walter Kerne Wilkins, San Diego; Bellevue Hosp. M. Coll., N. Y., Mar. 15, '86.
W. B. Wood, Carlhum; Missouri M. Coll., St. Louis, Mo. Mar. 4, '75.
Herbert W. Yemans, S. F.; Detroit M. Coll., Mich., Mar. 5, '78.

WM. M. LAWLOR, Secretary.

MEDICAL NEWS.

——According to the *Medical News*, a new departure in medical teaching will be tried at the University of Pennsylvania. The subject is "Medical Dietetics," and the lectures will be illustrated. The subjects so far announced are: The preparation of milk foods; the preparation of beef tea, broths, etc., and the proper method of cooking meats and vegetables.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from Nov. 20th to December 20th, 1887.

Assistant Surgeon J. L. Ord will proceed from Fort Mojave to Fort Thomas, A. T., and report to the commanding officer for duty. S. O. No. 126, Dept. Arizona, Nov. 25, 1887.

Assistant Surgeon W. B. Bannister will proceed from Fort Lowell, A. T., to Fort Wingate, N. M., and report to the commanding officer for duty. S. O. No. 128, Dept. Arizona, Dec. 1, 1887.

Assistant Surgeon L. N. Clark, upon the arrival at Fort Wingate, N. M., of Assistant Surgeon W. B. Bannister, will proceed to San Francisco, Cal., and report to the Medical Director of the Division for annulment of contract. S. O. No. 128, Dept. Arizona, Dec. 1, 1887.

Assistant Surgeon C. S. L. Anderson assigned to duty at Fort McDowell, A. T. S. O. 285. A. G. O. Dec. 8, 1887.

Leave of absence for one month, with permission to apply for an extension of one month, is granted Assistant Surgeon C. A. Sewall, to take effect on arrival at post of Assistant Surgeon Frick, under orders to report for duty at Fort Selden, N. M. S. O. No. 133, Dept. Arizona, Dec. 14, 1887.

Assistant Surgeon A. P. Frick will proceed to Fort Selden, N. M., and report to the commanding officer for duty. S. O. No. 133, Dept. Arizona, Dec. 14, 1887.

The leave of absence for one month granted Assistant Surgeon C. A. Sewall, by paragraph 4, S. O. No. 133, current series, Dept. Arizona, is extended one month. S. O. No. 52, Div. Pacific, Dec. 17, 1887.

PUBLIC HEALTH.

By W. R. Cluness, M. A., M. D., Sacramento, Cal.

In 91 town districts in the State, representing an aggregate population of 754,950, 1,169 deaths are recorded during the month of November, giving an annual rate of 18.58. The total mortality from zymotic diseases was 190, giving a rate of 3.02. Of these deaths 2 were referred to scarlet fever, 3 to whooping cough, 4 to measles, 75 to "fevers" (principally enteric), 46 to diphtheria, 52 to diarrhea, 4 to small-pox, and 4 to erysipelas. The total deaths from respiratory diseases were 344.

Small Pox in San Francisco. From the beginning of the year until May, there was only one case of small pox. Since then the cases number as follows: May, 8; June, 11; July, 9; August, 6; September 6, October, 6; November, 33; December, up to 28th, 62. Being, adults, 96 cases, 7 deaths; children (under 15) 31 cases, 5 deaths; Chinese, 14 cases, 8 deaths. Total number of cases, 141; total number of deaths, 20.

The Chinese do not report cases, and the eight deaths from small pox were discovered by the examining officer. The whole Chinese quarter is now being thoroughly examined and fumigated, and this, it is hoped, will tend to stop the spread of the disease. When a case of small pox is discovered, the patient is at once sent to the Hospital, together with his bedding and clothing; the premises are then fumigated, and as many people as possible vaccinated in the neighborhood. Over 27,000 vaccinations have been made at this office during the last six months. Dr. Meares considers San Francisco one of the best vaccinated cities in the world, and does not anticipate any epidemic.

Cyril Williams, Secretary Health Department.

Tabular statement from Cities on the Pacific Coast of 10,000 inhabitants and upwards, for the month of November, 1887.

Cities.	Population.	Annual Rate per 1000 for the month.	Total Deaths.	Zymotic Diseases.	Constitutional Diseases.	Local Diseases.	Developmental Diseases.	Violent Deaths.	Natural Causes.	Unclassified.
Los Angeles.....	60,000	10.00	50	10	3	15	5	....	...	7
Oakland.....	50,000	16.56	69	11	16	34	5	2	....	1
Sacramento	30,000	11 60	29	9	1	14	....	2	....	3
San Diego.....	26,000	12.92	28	3	1	10	....	....	....	10
San Francisco.....	300,000	21.35	534	94	113	269	32	12	....	14
San Jose.....	25,000	14.4	30	13	4	7	1	3	2	....
Stockton	15,000	12.8	16	2	...	8	4	2	....	....

METEOROLOGY.

Meteorological Summary for the Pacific Coast, during the month of November, 1887.

Weather.—The well-marked storms of the month have been but three in number. The first passed from the ocean to the east, north of Washington Territory, on the 11th and 12th, accompanied by light gales near Cape Flattery, and by rainfall extending as far south as the northern quarter of California. The second appeared in Arizona and Southern California on the 21st, giving rains in California as far north as Monterey. This rain was light, except in the extreme southern portion of California and Arizona, where it was unusually heavy. The third storm of the month appeared off the coast of Washington Territory on the 27th, and rapidly extended to the south, giving rains along the entire Pacific Coast. Rain also fell in light scattered showers in Oregon and Washington Territory on the 5th, 6th, 7th, 8th, 9th, 10th, 13th, 14th and 24th. During the greater portion of the month the temperature remained above the normal in all of the Pacific Coast districts; this period of warm weather being broken by a decided fall in temperature on the 23d. From the 24th to the 28th the weather was unusually cool, frost being reported over a wide area of country.

Temperature.—The mean temperature for the month has been about normal in Washington Territory, Northern Oregon, and along the coast of California. In Southern Oregon, and in the interior of California, the month has been slightly warmer than usual; but the departures from the normal are small, in no case exceeding three degrees.

Rainfall.—The rainfall has been in excess of the average rainfall for the month in southeastern Washington Territory, and in the extreme southern portion of California. In all other districts it has been markedly below the average.

California—Tabular Statement for November, 1887.

Stations.	Temperature.				Rainfall.			Weather.			Wind.	Furnished by.
	Highest.	Lowest.	Mean.	Mean daily Range.	No. days Rain fell	Total Rainfall.	Mean relative humid'y.	No. of Days			Prevailing direction	
								Clear.	Fair.	Cl'dy.		
Auburn, Cal	77.0	30.0	53.4	.....	.....	1.22	.....	....	....	....	E.	South. Pac. Co.
Colfax, "	86.0	39.0	53.9	.....	.....	1.61	.....	....	....	....	N.	" "
Eureka, "	.....	.....	.....	.....	.....	.....	.....	....	....	....	.....	
Los Angeles, "	86.0	38.8	60.0	23.2	3	0.80	78.1	18	9	3	W.	Sig. Ser. U.S.A.
Monterey, "	74.0	38.0	57.5	.....	.....	1.35	.....	....	....	....	S. E.	South. Pac. Co.
Oakland, "	68.0	32.0	53.35	13.8	4	0.78	87.41	18	5	7	.....	J. B. Trembley.
Paso Robles, "	77.0	33.0	52.4	.....	.....	.60	.....	....	....	....	S.	South. Pac. Co.
Red Bluff, "	80.5	27.3	55.2	23.4	6	1.52	46.5	17	7	6	N.	Sig. Ser. U.S.A.
Sacramento, "	75.2	28.0	54.7	25.9	3	0.45	62.8	23	3	3	N. W.	" "
San Diego, "	82.0	44.4	59.2	14.8	4	2.08	76.8	15	8	7	N. W.	" "
San Francisco, "	73.7	42.1	55.2	13.4	5	0.94	77.6	13	9	8	W.	" "
Santa Barbara, "	84.6	39.5	58.9	21.4	3	1.10	.....	24	2	5	W.	Hugh D. Vail.
Santa Cruz, "	82.0	32.0	55.7	.....	.....	1.21	.....	....	....	....	N.	South. Pac. Co.

Blank (....) indicates data missing.

Clear Day—One on which cloudiness is 3 or less on a scale of 10.
Fair Day—One on which cloudiness is from 3 to 7.
Cloudy Day—One on which cloudiness is over 7.

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NOTES FROM THE PARIS CLINICS.

[Specially reported for THE MEDICAL TIMES]

PROFESSOR VERNEUIL — THE TREATMENT OF SYPHILIS— BROMISM.

Mr. Verneuil asks the questions, should an infectious chancre be treated immediately, or should the treatment be delayed until the appearance of the secondary or tertiary symptoms? If it be decided to treat the affection, what method should be chosen? He condemns any delay in treating syphilis. It is impossible to foretell what proportions this affection will assume; he therefore adopts an immediate general treatment in order to prevent the possibility of tertiary syphilis. It is true that certain tertiary symptoms, as subcutaneous gummata, and superficial exostoses, are rapidly modified by iodide of potassium; but this is not the case in pulmonary, visceral, and hepatic syphilis, in osteitis, and neuroses at the base of the skull, perforations of the upper palate and bones of the nose, white tumors, lesions of the trachea, rectum, and testicles, etc. The iodide, when employed too late, fails to modify these symptoms. Certain patients, particularly herpetic subjects, cannot take this remedy. Mercury should be administered at the first appearance of syphilis: it has a cleansing action and facilitates the cicatrisation of the indurated chancre, mucous, humid or dry patches; under its influence arthralgia, nocturnal cephalalgia, facial syphilides, iritis, and certain forms of amblyopia disappear. It is employed with advantage in cases of repeated abortion, followed by the premature birth of sickly, diseased infants, and to combat syphilis in new born infants.

When it is difficult to arrive at a diagnosis, mercury should always be prescribed. Tumors of the testicle are sometimes cured in three weeks by mercury, in cases where the iodide has failed to produce any effect. The doses of the iodide should not exceed 3 gm. Doses of 5 or 6 gm. should only be employed in cases of gummata of the nose, of the upper palate, the soft palate,

the pharynx, and of the nail, where the gumma has developed rapidly. Mercury and iodide of potassium may be employed simultaneously to combat the secondary or tertiary symptoms of syphilis, when these symptoms are tardy. Professor Verneuil prescribes the following dose: 5 cg. of proto-iodide of mercury, and 1 gm. of potassium iodide daily. Gibert's syrup[1] is a good preparation, but some patients cannot take it. Baths of corrosive sublimate, in cases of extensive ulcerations are sometimes remarkably efficacious. Mercurial inunctions are only advisable when a speedy and energetic treatment is required, but the internal administration of the drug must be continued at the same time.

For the local treatment of precocious primary and secondary ulcerations, and of mucous patches, M. Verneuil recommends nitrate of silver and chloral. He prefers Vigo's plaster[2] in the treatment of tardy secondary and tertiary ulcers. He considers that the ordinary ointment of potassium iodide, employed in the treatment of connective tissue, glandular or osseous hyperplasia, contains an excessive quantity of iodide—1 in 15 is sufficient strength.

These opinions show that Professor Verneuil is a partisan of the premature treatment of this affection, and that he gives the preference to mercury in the case of certain secondary and tertiary symptoms.

The symptoms which follow the prolonged use of the bromide sometimes constitute what is called *bromism*; this affection may be serious enough to require treatment. It is characterized by diminished cerebral activity, apathy, stupor, imbecility, or somnolence, prostration, diminution of general sensibility, pallor, and considerable anemia; the patient grows thin, and arrives at a state of cachexia. These symptoms may be avoided by employing moderate and progressive doses of bromide, and by the simultaneous use of mild diuretics, which induce the rapid elimination of the drug. If, notwithstanding these precautions, the symptoms of bromism appear, certain tonics and chalybeates should be administered to combat the anemia; coffee or caffein may be employed to combat the somnolence or apathy; in cases where

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[1] Biniodide of Mercury, 1. Potassium Iodide, 50. Water, 50. Simple Syrup, 2400.

[2] Emplast. Simpl., 2000. Cer. Flav., 100. Pix. Terebinth., 100. Gum Olibanum, 30. Gum Amoniac., 30. Gum Bdellium, 30. Gum Myrrh, 30. Crocus, 20. Mercury, 600. Turpentine, 100. Liq. Styrax, 300. Ess. Lavender, 10.

the eruption of bromism is confluent arsenic should be administered.

M. Bernier lately recommended the following method of administering bromide: It should be mixed in a large quantity of liquid, and administered *after* meals, in order to avoid contact with the wall of the stomach. He recommends the simultaneous use of arsenic in treating the accidents consecutive to bromism. For the local treatment of furuncles, he prescribes the following preparation of tannin:

Tannin, gm. 1.
Glycerine, 100.

This mixture is applied with a brush.

PROFESSOR BROUARDEL.—CÆSARIAN SECTION—SIGNS OF RECENT AND REMOTE DELIVERY.

The fetus should be at least five months old when the operation is attempted. M. Tarnier recently succeeded in rearing two infants, which were born at five months, at the Maternité Hospital. According to the French medical code the fetus is not viable before the sixth month. Professor Brouardel considers that the Cæsarian operation should be performed when there is a reasonable chance of delivering a living fetus, and that a health officer or midwife is justified in performing it when the mother is dead. At the same time he admits that it is often difficult to certify this fact. A nervous attack or syncope frequently gives the appearance of sudden death to a healthy pregnant woman. In 1845, a certain Dr. Rigaudeau, removed the fetus from a woman whom he erroneously supposed to be dead. The mother and child both survived. Such a case is unprecedented. Speaking generally, the chances that a woman will survive the Cæsarian operation are very problematic.

Dr. Brouardel gives the following indications for ascertaining whether the operation has been performed on a dead or living woman. If there are no apparent traces of blood at the level of the uterus, it may be concluded that life was extinct when the operation was performed. If the patient was alive at the time, then traces of hemorrhage in the uterus will be detected.

Whether the Cæsarian operation should be performed on a woman who is at the point of death, or upon the body of a girl who has committed suicide to avoid dishonor, are questions which he is not prepared to decide. There is a law in France, as in other countries, by which physicians are obliged to perform the Cæsarian operation. At Vienna, a physician lately refused to

conform to this law in the case of a cholera patient, on the plea advanced by certain authorities that in cholera the fetus invariably dies before the mother. Dr. Brouardel accepts this assertion with reserve, although he admits that when the mother succumbs to cachexia, or poisoning, or to an infectious disorder, such as phthisis, small-pox, cholera, etc., the fetus very rarely survives.

He recommends the following means for determining whether delivery has recently occurred: The breasts should be examined, in order to ascertain whether they contain any milk. The weals or stripes on the abdominal wall, and the color of the linea alba should then be examined. Sometimes the weals are not present; they may be determined by other causes than delivery. In women with upright figures, the sacrum projects considerably into the small pelvis. In such cases, delivery causes the abdomen to distend considerably, and the abdominal wall will present numerous weals. If the patient is giving to stooping, the fetus may develop behind, in which case no weals will be observed.

Dr. Brouardel attaches great importance to the examination of the genital organs. These present contusions and erosions; the vulva and neck of the uterus are lacerated; the frenum pudendi has frequently given way. The nature of the discharge should be observed. It is composed of blood with clots during the first twenty-four hours; it then becomes serous until the fourth, fifth, or sixth day, and then white. The lochia ceases within twenty days. The character of the discharge will show whether delivery has occurred one, two, or three weeks previously. After delivery, the uterus is 20 or 22 cm. above the pubis; eleven days after delivery it is even with the pubis. It measures 11 cm. after the placenta is expelled. The uterus recovers its normal form between the fifteenth and twentieth days after delivery, but its normal volume is not restored for five or six months. At the necropsy the dimensions and weight of the uterus are valuable indications as to the time at which delivery has occurred. In a single woman this organ weighs 50 gm.; immediately after delivery it weighs 1,000 gm.; six days after delivery it weighs 650 gm. There are erosions in the mucous membrane. The region where the placenta was situated presents a corrugated surface, whilst the remainder is smooth. It is very difficult to diagnose delivery that has taken place at a remote period. The most valuable point in this diagnosis is the aspect of the neck of the uterus. In single women it is circular; the folds are smooth and rounded. In women who have borne

children it is transverse and wide; the folds are rough and irregular.

PROFESSOR SCHWARTZ—LARYNGEAL CANCER.

The illness of the Crown Prince of Prussia, and the recent discussion on the treatment of laryngeal cancer at the Academy of Medicine, induced M. Schwartz to resume a topic which formed the subject of his thesis for the *concours* of 1886.

At the outset, cancer may only produce slight phonetic disturbance. On examination with the laryngoscope, swelling, and occasionally ulceration of one of the vocal cords is detected. In many instances the progress of the disease must be watched before a diagnosis can be established. When surgical intervention is effected during the first period of laryngeal cancer, while it is still local, there is a greater probability of success than when it is effected later. In order to arrive quickly at a diagnosis, small portions of the tumor are sometimes removed, and examined with the microscope to determine the precise nature of the pathological tissue. This method is not applicable in every instance. Once the diagnosis is established, the tumor should be thoroughly and speedily extirpated. If, when (after tracheotomy) the thyroid cartilage is incised and the alæ separated, a circumscribed lesion, such as a hard tumor, resembling a papilloma, is detected, the ablation of the diseased part may suffice, and the cartilage of the corresponding half of the larynx need not be removed; but if the evil shows signs of spreading to the perichondrium and cartilage, then partial extirpation of the larynx must be effected. This method is less critical than total extirpation; recurrence does not follow more often than in the latter operation, and the patient is not, as in this case, obliged to wear a canula or artificial larynx. When a soft, infiltrated tumor is detected in the larynx, palliative tracheotomy should be employed. In short, in M. Schwartz's opinion, hemi-extirpation of the larynx should be effected in cases of unilateral, localized lesions. In cases of soft infiltrated cancer, he prefers a palliative method, such as tracheotomy or laryngotomy in the crico-thyroid space.

In cases where cancer has extended to both sides of the larynx, M. Schwartz considers that tracheotomy is the safest method to employ. It obviates the immediate danger of suffocation, and sometimes prolongs the patient's life by two, three or four years.

In a communication recently made to the Medical Society of Berlin, Dr. Hahn stated that he had performed extirpation of the

larynx fifteen times. Only two of the patients survived; one of these was operated on seven years ago; the other, two and a half years ago. These results show that if total or partial extirpation may be employed in cases of hard cancer, it should be avoided in cases of soft, infiltrated carcinoma.

M. Schwartz concluded with the following indications: Once the diagnosis of cancer is clearly established, if the patient is threatened with suffocation, tracheotomy should be performed sufficiently low down to ease the larynx. This operation frequently allays several painful symptoms (fits of coughing, shooting pains, salivation); moreover, it sometimes retards the progress of new formations. If the cancer is a hard epithelioma characterized by slow evolution; if it is confined to one side of the larynx, and if the glands are not involved, tracheotomy may be followed by resection of the corresponding half of the larynx. The patient should be accustomed to wear a canula-plug immediately after the tracheotomy. Unilateral or total ablation is the only curative method for soft diffuse cancer, but this operation is so critical that it should only be resorted to in particular cases. When cancer has spread to both sides of the larynx, total extirpation and tracheotomy may be necessary, but Dr. Schwartz considers that in most cases tracheotomy alone should be resorted to. This operation constitutes the only safe form of surgical intervention, when the peculiar circumstances of a case of laryngeal cancer render a radical operation dangerous.

PROFESSOR OLLIVIER—THE DIAGNOSIS OF SMALL-POX.

At the onset of a papular eruption it is often difficult to decide whether the case is one of measles or of small-pox. The following method is a certain means of determining by which of these diseases the eruption is produced. If, upon stretching a portion of the skin the papule becomes impalpable to the touch, the eruption is caused by measles; if, on the contrary, the papule is still felt when the skin is drawn out, the eruption is the result of small-pox. This method of arriving at a diagnosis was discovered by M. Grisolle, and might well be designated as *Grisolle's sign*. M. Ollivier states that in modified small-pox, marked or slight fever with suppuration, is always present. In variolous eruptions, even when these are confluent, the skin of the abdomen is the region which is least affected.

ON THE DIFFICULTIES OF DIAGNOSIS IN TUMORS OF THE BRAIN.

By W. Hale White, M. D., London,
Senior Assistant Physician to and Lecturer on Materia Medica at Guy's Hospital.

Probably there are few diseases in which the difficulty of diagnosis varies so much as it does in cases of tumor of the brain. It may be the easiest diagnosis to make, and it may be one of the most difficult. There comes a time in the history of almost all tumors of the brain where the diagnosis is easy enough, but frequently this diagnosis is not made nearly so early as it should be. Only once have I ever come across, at a *post-mortem* examination, a cystic tumor, the existence of which was not suspected during life. The brain was one removed from a person who had died in Guy's, but in whose case there were so few cerebral symptoms that it was not examined till it was sent down to the dissecting room; there one of the students called my attention to the fact that he had discovered a tubercular mass in one-half of the cerebellum. But it is no credit to us to diagnose these cases very late; we must try to discover them in their earliest stages, because an early settlement of the true nature of the disease is by no means purely of scientific interest, for although treatment is often of but little avail, still in some cases, such as those of gumma, we may do good. Now-a-days, that it is possible to remove cerebral tumors, the probability of doing so successfully will be greatly enhanced by getting the cases early, and, apart from treatment, is the prognosis of great importance, for if through a faulty diagnosis, we tell a patient who has a headache that he will soon get well, when events show that he soon dies, not only are the friends, but the doctor also is vexed to think he did not discover the real nature of the case when he first saw it. I have just mentioned the only case I have ever met in which the patient had a tumor of the brain, but in whom the malady was not diagnosed during life. This is of excessive rarity; in fact, Dr. Fagge says he has never seen such a case. Now, I will relate an example of a group of cases, less rare, namely, those in which the diagnosis is not made till the case has made some progress:

Alice H——, æt. 26, was admitted into Guy's Hospital June 14th for severe pain in the forehead and vertex. Family history of consumption. She never had any illness before the present, and has not been liable to headache or loss of sight. Eight years ago she fell down, striking her head on the left side, and she was un-

conscious for some time. She has been ill a month, with severe pain over both eyes, shooting up to the top of the head. She has also become very near-sighted; frequently, when walking about, she has lost the power of sight altogether for a few seconds, without loss of consciousness. She is sometimes giddy when eating, and has been sick twice since the beginning of her illness, but not severely. After her death I went to see her brother with whom she lived, and questioned him closely, but could obtain no further history from him. None of her friends thought her ill, and they expected her to be well shortly. The doctor who saw her, and he was one of the most distinguished physicians in London, does not seem to have thought the case at all serious; all he was told was that she had pain in the head. Her brother said that he thought, now his attention was called to the fact, that during life she was a little mysterious. She would often use the phrase "I am thinking," and when her brother asked what she was thinking about she declined to say. He did not think that her memory, reasoning or emotional faculties, were at all impaired. She was engaged to be married and would take long walks with her *fiancé*, remaining constant to him till the end.

On Admission.—No paralysis or anesthesia; in short the only sign to be detected was marked double optic neuritis. She complained of nothing but intense frontal headache. She used to walk about the ward and assist the nurses. At 2 A. M., June 22d, was found dead in bed.

Post-mortem Examination.—Brain, membranes and vessels healthy. The convolutions were flattened, especially those of the left frontal lobe, which was much more prominent than the right, projecting forwards beyond it considerably. In the left frontal lobe a hardness could be felt. On making horizontal sections, it was found to contain a very light colored greyish new formation, which at the front and on the outer part contained a cyst full of fluid. The new formation avoided completely, the motor convolution; the ventricles were dilated. Excepting those parts just mentioned, the whole of the brain was absolutely healthy. The microscope showed the tumor to be a glioma.

This is an extremely important case, as showing the great difficulty of diagnosis in the early stages; for when she was first seen she complained of nothing but headache and did not mention her condition of sight, for at the early stages it was not much affected and only gave her the idea that she was a little short-sighted. She only vomited twice during the whole illness. It is true that later

on the diagnosis was made on account of the optic neuritis, but the case is brought forward to emphasize two points: Firstly, that in the early stages the diagnosis may be very difficult; and, secondly, that the patient may actually die without any further symptoms than headache and optic neuritis. So that, had we omitted to examine this patient's eyes, we should never have found out during life what was the matter with her.

In the first case I drew attention to, the tumor was in the lateral lobe of the cerebellum, in the second it was in the frontal lobe; so that we may conclude that in these two situations the growth is most difficult to diagnose. It is possible that a growth in the extreme posterior part of the occipital lobe would be difficult to diagnose; but such a position is very rare. It must be remembered that sometimes growths in these regions will produce paralytic symptoms as a result of their great pressure. Thus, a tumor in the frontal lobe may, by pressing down upon the nerves at the base of the brain, compress them against the base of the skull and produce, for example, a squint. As an example of this possibility, I may take the following from my case-book:

A little girl, aged about eight, was sent to me by Dr. Brailey. Five years ago she had a severe blow on the back of the head; the doctor said it was concussion and put her to bed. Her present condition is that she has frontal headache, left internal strabismus, and optic neuritis. The optic neuritis makes it almost certain that she has a growth within the cranium—and, perhaps, the left internal strabismus might make one put the growth at the base of the brain, pressing on the left sixth nerve, paralysing it and thereby leading to over-action of the internal rectus, but I think it is quite a possibility, that the blow at the back of the head may by *contre-coup* have damaged the frontal lobe on the left side. The increase of the frontal lobe by new growth secondary to its damage has led to increased intercranial pressure, which has had the effect of jamming the left sixth nerve against the sphenoid bone, and thus paralyzing it, for it is to be remembered that of the nerves in the cavernous sinus the sixth is the lowest, and therefore most likely to be pressed first.

The advantage of this hypothesis over the first is, that it avoids the necessity of supposing the existence of so small a growth as to affect the sixth nerve only; it places the tumor at the seat of the headache, and, lastly, it connects the growth with the blow. This last is an important fact, for the opinion of all those who have paid special attention to this subject is that tumors of the brain are

undoubtedly set up by a blow, and this partly explains the fact that tumors of the brain are about twice as common in men as in women, for the former, on account of their more dangerous occupations, are more likely to receive blows on the head. Still, inasmuch as male children are much more liable to cerebral tumors than female children, difference of occupation is not the whole explanation. If a case of tumor of the frontal, or occipital lobe, or lateral lobe of the cerebellum were to recover, the case would present very great difficulti s; but, unfortunately, such a thing is extremely improbable, for almost the only tumors capable of recovery are gummata, and it is extremely rare for them to be situated in either of the positions just mentioned, and even if they were, there would probably be a syphilitic deposit elsewhere within the cranium, giving rise to symptoms indicating its position.

I may be, however, excused for mentioning a case of frontal lobe tumor which did recover, not because the diagnosis was difficult, but on account of the extreme rarity of the case. Amelia, A——, æt. 11, was admitted into the Children's Hospital with an abscess over the left eye, about an inch above the eyebrow. This was opened antiseptically, and was found to be due to dead bone: the necrosed bone was trephined away, and then there was found on its inner surface a sarcomatous tumor, which was implicating both brain and bone. This was burnt away with nitric acid, and, after a sharp attack of meningitis, the child recovered. She went to school and was in nowise deficient in intellect, and died some years after from small-pox.

The symptoms of tumor of the brain may be divided into two great groups. The general, the chief of which are headache, vomiting and optic neuritis, which may occur wherever the tumor is situated, and others, special ones, such as convulsions and paralysis of various sorts, due to irritation or destruction of various parts presiding over definite functions. Now, the difficulty of diagnosis in the cases we have been considering, arises from the fact that in them the second group of symptoms is wanting. Therefore it behooves us to examine the first group very carefully.

The headache of cerebral tumors is rarely or never absent, but may be paroxysmal in the earlier stages of the illness, although it tends to become continuous as the malady advances. The position of it is fairly constant, and is sometimes located over the tumor. This may be so marked that from the constancy of the pain in one spot the patient may say that he is sure there is something inside his head. It would be out of place here to enumerate

all the causes of headache, but it will be wise to indicate those which are most likely to be mistaken for cerebral tumor. I think the various reflected headaches, such as that due to myopia, disease of the teeth, disease of the nasal mucous membrane, are most frequently likely to lead us into difficulties. The eye one especially, for we might hastily conclude that the difficulty of vision of which the patient would complain was due to optic neuritis, if we got it into our heads that the patient had a cerebral tumor. I have known this mistake made. A child who complained of severe frontal headache was condemned because she said she had some difficulty of sight. A pair of spectacles soon cured her. Then again, severe constant headache due to teeth is often overlooked. Like the eye and the nose headache, it resembles the tumor headache in being often at one spot. It must be carefully remembered that the tooth itself need not be in a condition to give pain. I well remember a gentleman who was so sure that a decayed tooth was not the cause of his trouble that he required the greatest persuasion to have it out, but was both surprised and delighted after the extraction to find that the pain ceased. The headache reflected from disease of the nasal mucous membrane is comparatively rare, but is nevertheless often overlooked because of the difficulty of examining the nose, but in cases of headache its possibility should always be borne in mind. The anemic headache will be mentioned in connection with optic neuritis. Many other headaches, such as toxic, pyrexial, gouty, rheumatic and syphilitic are distinguished by other symptoms. Others, again, such as gastric, neurasthenic and neuralgic tend to pass off: the hysterical may give rise to difficulties, but is usually characteristic, as is also hemicrania or sick headache. Still it will, I think, be allowed that the diagnosis of a headache as certainly cerebral is by no means always very easy, whilst, on the other hand, the cases I have selected show that it may be due to cerebral tumor when it is the only symptom of that lesion.

Although I have mentioned vomiting as one of the general symptoms of cerebral tumor, there is no doubt that this is not strictly correct, for statistics show that it is much more common when the tumor is in the neighborhood of the cerebellum and fourth ventricle, which is to be expected considering the position of the vomiting centre, so that although vomiting is strictly a local symptom, nevertheless it is so common in cases of cerebral tumors that it holds an intermediary position between local and

general symptoms. When it occurs in cases in which the growth is not near the vomiting centre it may be looked upon as a pressure symptom, for the centre is a very susceptible one, and as such would be easily affected by alterations in general intercranial pressure. But, considering that when the vomiting is due to a growth near the vomiting centre, there will of necessity be other signs indicating its presence, and when it is due to pressure, by that time it is probable that the optic neuritis or other symptoms will have clenched the diagnosis, we see that its presence is of no very great importance in the diagnosis of these obscure cases that we are considering; its use is chiefly as a confirmatory sign.

Although constipation and wasting, both of them generally occur in cerebral tumor, they are present in so many other diseases that I do not think they particularly aid the diagnosis.

With regard to optic neuritis, there is no doubt that the presence of it with regard to obscure headaches which might be cerebral, almost certainly clenches the diagnosis, but it must not be forgotten that there may exist considerable optic neuritis without any impairment of vision, so that merely asking the patients about their sight is by no means sufficient. Whether or not a cerebral tumor can exist without optic neuritis we need not discuss, because it is present in such a very large proportion of the cases that it is excessively improbable that it will not develop itself in the small group we are considering. But then there is the other question, namely, whether it may be present without an intracranial lesion, and there seems to be no doubt but that it may, in rare cases of anemia and chorea. The latter is such a distinctive disease that it need not be considered, but it is just possible that a case of anemia might form a combination of anemic headache and optic neuritis and be mistaken for a case of cerebral tumor; but, considering the rarity of optic neuritis as a symptom of anemia, it is very improbable that this mistake should be made. Still, I have once known it happen. A girl was sent into the hospital for cerebral tumor. She had headache and optic neuritis, but as she was very anemic she was put upon iron. The headache, neuritis and anemia all disappeared, and she left Guy's quite well.

The conclusion, then, that we may come to is, that tumors of the frontal lobe, occipital lobe and cerebellum may be very obscure, presenting for a long time nothing but headache, and that in all cases of obscure headache the doctor should always keep in view the possibility of cerebral tumor, and by frequent examinations of the optic disc should seek to clench the diagnosis as early

as possible. Hitherto we have considered only the question of the diagnosis of the presence of a cerebral tumor; now we will consider for a few minutes the method of finding out the nature of the tumor, under which term we must include both gummata and masses of tubercle.

Now, with regard to gummata, of course the history of other symptoms of syphilis is of very great importance. Furthermore, as has been previously hinted, multiplicity of symptoms which cannot by any ingenuity be all referred to a single growth in one spot, is highly suggestive of syphilis. Again, if the symptoms lead you to suspect a growth in the substance of the brain, do not diagnose syphilis, for all large collections of cases show that syphilis is limited to the surface of the brain, growing inward, and never originating in the cerebral substance. Men, as might be suspected, are more liable to cerebral gummata than women. It is a disease of early middle life. A history of an injury does not exclude gummata.

Tubercular masses in the brain are usually found in children—never after middle life. There is usually more than one, and symptoms of meningitis are then likely to be present, because inflammation of the membrane is very liable to be set up by the cheesy masses. The most extraordinary peculiarity of the tuberculous masses is the frequency with which they affect the cerebellum, so much so that if you, from the symptoms, diagnose a cerebellar tumor in a child, you may be almost certain that it is tubercular. Generally there are other symptoms of tubercle elsewhere in the body, but their absence must not be taken as certainly indicative that the growth in the brain is not tubercular, for it is well known how common it is for the physician to discover tubercular masses in the mesenteric or bronchial glands in children at the autopsy, when their presence was not suspected during life. Tubercular masses in the brain are generally pretty distinct from the surrounding tissue.

Of other forms of tumors, glioma is by far the most common; there are very few other places in the body in which they occur, namely, in the eye, cord and suprarenal capsule. They are single in the brain and do not infect the other parts of the body with secondary growths. I know of no case in the pathological records of Guy's Hospital, or elsewhere, in which the growth was undoubtedly a glioma and yet was accompanied by similar growths elsewhere in the body. So that if I found a tumor, which at first sight I thought was a glioma, was accompanied by growths elsewhere, I

should take it as certain that it was a sarcoma, for frequently it is very difficult under the microscope to tell a glioma from a sarcoma; so much so, indeed, that Virchow recognizes the existence of an intermediary glio-sarcoma. Gliomata may occur anywhere in the brain, but in children they have a special predelection for the pons, which may be largely swollen and become four times its natural size, but yet remain uniform as a consequence of this gliomatous enlargement.

Carcinomata can only be diagnosed as certainly present when we have a primary seat elsewhere. I do not know of its existence in the brain as a primary growth. There is one case mentioned in the pathological records at Guy's, but I think a perusal of it will show that its exact nature was questionable. I remember seeing a case in which a tumor of the brain was diagnosed: that organ was the first examined after death and a cancer was found, although no primary one had been detected during life. A very thorough search, however, revealed in the breast a small scirrhus too small to have been detected before death.

Carcinoma of the brain secondary to growth elsewhere is, however, decidedly rare. The most frequent secondary growth is sarcoma, and these sarcomata are nearly, if not always, multiple, whilst we saw that gliomata were usually single. The other growths in the brain are too rare to be of much diagnostic importance. Both taenia echinococcus and cysticercus cellulosæ may affect the brain, but neither are common in England. The diagnosis of the nature of the tumor is, however, not of very great importance, for inasmuch as a gumma is the only one we can affect by medicine, and, also, inasmuch as our diagnosis of the nature of the growth can never be absolutely certain, we ought in all cases to give large doses of iodide of potassium, which may be safely pushed to 30 or 40 grains thrice daily.

65 Harley Street, London, W.

HYDROPHOBIA.

Read before the Sacramento Society for Medical Improvement.

By H. Voeller, M. D., Sacramento, Cal.

Hydrophobia derives its name from the most striking symptom of the disease: the dread of water. The Germans call it *Lyssa*, from the Greek *lytta*, signifying a small worm, which ancient writers state was found under the tongue of the rabid dog, and which was considered to be the cause of the disease and its con-

tagium. The disease is produced by the bite of a rabid animal, commonly a member of the canine family, the virus being transmitted by the saliva. Rabies has been observed by credible authorities in men and dogs who had not been bitten; but this does not prove a spontaneous origin, for it is much more probable that the poison has been conveyed unawares, as by a scratch, or by contact with objects moistened with the saliva of a rabid animal, the disease always resulting from the introduction of a specific virus into the system. Cases of hydrophobia are reported from bites of animals, which were not rabid at the time. But, Youatt, who has, perhaps, seen more of the disease than any other person, describes cases in which, though there had been no symptoms of rabies at the time the injury was inflicted, yet soon afterwards the animal became decidedly rabid. It seems also possible that in rare cases rabies may affect a dog as a mild and insignificant malady; unfortunately the dog is often destroyed before it has been undoubtedly ascertained that it was rabid. The virus cannot be communicated through the sound skin; there must be an abrasion or breach of surface. It may, however, be communicated by contact with a mucous membrane, if reported cases are authentic, unless the lips in these instances happened to be chapped or abraded.

It is an interesting question whether the saliva of a rabid man is capable of inoculating another human being. Many experimenters have tried in vain to inoculate dogs with the saliva of a hydrophobic man; but there is but one authentic case on record (Magendie and Breschet) which has proved that the saliva of a person suffering from the disease is capable of communicating it to animals. It is, therefore, very probable that the disease, though it may not be transmitted often or easily, is yet communicable to man also. Still, it is a strange fact that of the thousands of persons who have attended on patients with hydrophobia, no authentic instance has been recorded in which the disease was contracted either by attendance during life or inspection after death.

Immunity.—It is curious that different species of animals appear to be susceptible to hydrophobia in different degrees. Thus, according to Youatt, two dogs out of three bitten become rabid. Cattle fare better, perhaps, because in them the skin is looser and less easily penetrated; at least half of those bitten escape. With sheep the bite is still less dangerous, not more than one in three being affected, the tooth, perhaps, having been wiped clean in its passage through the wool. Man is least susceptible; Hunter esti-

mated the proportion as one in twenty, and Hamilton as one in twenty-five. While these computations may be too low, there is no doubt that the majority, probably two-thirds, of persons bitten escape the disease. This may be partly owing to an inherent inaptitude, as similar differences in susceptibility have been found to exist in animals; but probably far more will depend upon the circumstances and manner in which the bite is inflicted. The virus may have been wiped off by the clothes in the act of biting, or it may have been exhausted before the injury was inflicted, for it is recorded that of a number of persons or dogs bitten by the same animal, those only became rabid who were first exposed; on the other hand, it sometimes happens that nearly every one bitten is effectually inoculated. The saliva of a rabid wolf would seem to highly virulent; but these beasts fly always to a naked part, and hence the greater fatality of their bites—considerably more than one-half of the victims perish.

Incubation.—A certain period is necessary to enable the poison to explode upon the general system; in other words, to multiply itself and to extend its influence. The time of incubation of the virus of hydrophobia is indefinite, and longer than that of any other acute specific disease. It is considerably shorter in animals than in man, and in very young persons than in adults, and it may be said to range from six weeks to eighteen months. Romberg states that an analysis of sixty authentic observations has shown that the shortest period is fifteen days, the longest from seven to nine months; the average from four to seven weeks. But there are cases recorded in which three, five, and even twelve years have intervened between the inception of the poison and the subsequent attack. In those cases there may have been some unsuspected re-inoculations. If, however, we admit, as we must, that twelve or eighteen months may elapse, we can scarcely deny the possibility, or even probability, of longer periods, for it is as hard to explain an incubation period of one year as of five. We must, therefore, conclude that the poison lies inert at the site of the original injury, and only become destructive when under certain obscure conditions, and at indefinite periods it is set afloat in the circulating blood. Yet it is certain that the disease is often developed within the usual time after the most prompt and complete excision of the parts bitten.

Symptoms.—When a person has been bitten by a mad dog, the wound behaves in a manner similar to one inflicted by a non-rabid animal. During the period of incubation there are commonly no

symptoms. After an uncertain interval the subject experiences pain or some uneasy or unnatural sensation in the region of the bite. If it has healed up, the cicatrix tingles, aches, feels cold, stiff or numb; sometimes it becomes visibly red, swollen or livid; sometimes a red line can be traced in the direction of the lymphatics; sometimes, though rarely, the scar opens afresh and discharges a peculiar ichor, but often there is no change whatever in the cicatrix. The pain or uneasiness extends from the sore or scar towards the central parts of the body; *i. e.*, if the bite have been inflicted on a limb, the morbid sensation extends towards the trunk. This period is called the period of recrudescence. It seldom fails to occur, although it is sometimes unnoticed, the attention of the patient and his medical adviser being absorbed by the horrible sequel. Simultaneously with the local affection, evidence of general indisposition appears. The patient feels unwell, his head aches, his sleep is disturbed by unpleasant dreams, he feels melancholy and depressed, and he has occasional attacks of chilliness, with a highly impressible state of the nervous system. The poison is now fairly at work. Soon after the renewal of the local irritation—a few hours, perhaps, but certainly within a few days—the specific constitutional symptoms begin. He is nervous, irritable and complains of pain and stiffness about the neck and throat; he finds himself unable to swallow fluids, and every attempt brings on a paroxysm of choking. This continues for two or three days, till the patient dies exhausted.

Anatomical Characters.—The morbid anatomy of the disease throws but little light upon its nature or proper treatment. It is needless to enter into a minute account of the morbid appearances met with in persons dying from hydrophobia. They are various, uncertain and unsatisfactory. Vascularity of the brain and spinal cord has been noticed, especially of the medulla oblongata and the corpora olivaria (Youatt). The mucous membrane of the pharynx is red and congested. This is obvious when we consider the violent straining and spasmodic action of those parts for some time before death. The character of the symptoms of hydrophobia during life and the absence of all definite and constant traces of organic changes after death sufficiently marks the disease as belonging essentially to the nervous system. Romberg, therefore, classified it as a toxoneurosis.

It has been questioned whether there is such a disease as hydrophobia, the cases recorded being ascribed to a neurotic condition produced by the alarmed imagination of the patient, who, having

been bitten by a dog reputed to be mad, is frightened into the belief that he has hydrophobia, and is ultimately scared out of his very existence. There is no doubt that there are cases where, after a period of anxiety regarding the consequences of a bite, mere mental excitement directed to the disease may determine symptoms of dysphagia, somewhat resembling the genuine disease in its early stages, the patient's fears are intensified, and the symptoms increase. This has been termed spurious hydrophobia, and the distinction between genuine rabies is often rendered extremely difficult. In support of this proposition it is urged that the period of incubation has no parallel in any infectious disease. Other ferments do not remain inoperative for an indefinite time. Lodging in an organ they presently disturb its functions, or they are more or less rapidly eliminated from the system through one or more of its natural emunctories; or they produce specific and constant results after periods of incubation, which are also definite and constant. But there is no instance in which a poison remains latent for an indefinite and prolonged period to give rise at last to symptoms that are strictly specific. The frequent immunity of persons bitten is also cited, and the fact that none of the phenomena of the disease are constant—even the dread of water is not invariably present. The anatomical changes also are by no means constant, nor do they at all equal what we would expect to find from the symptoms present during life. Finally, the preventive treatment, the application of nitrate of silver, a caustic, the effect of which is merely superficial—so highly recommended and so successfully used by some of the best authorities (Youatt, Blanco)—by no means strengthens the belief in the existence of so powerful a poison.

Taking these objections in their order, we find that many persons bitten by mad dogs have been under no apprehension at all until seized by the disease. Many, also, have been men of naturally strong and well-balanced minds, not at all likely to be frightened into believing that they were seriously ill, unless they really were so, and still less likely to be terrified into their graves. The disease has occurred in infants and idiots, who had never heard or understood a word about mad dogs or hydrophobia, and in whom the imagination could have had no power in eliciting the malady. It is further interesting to know, that idiosyncracy exists in animals as well as in man, and that the same uncertainty of incubation has been noticed amongst infected dogs. The average period of incubation in dogs seems to be about 40 days—the minimum 14 and

the maximum 75 days—but authentic cases are reported where it took 155 and 183 days. According to Flemming it appears to be sometimes hastened by excitement, anger, sexual irritability, terror, injury to the cicatrix, sudden changes of temperature and other causes. Recent investigations have thrown more light on the anatomical characters of the disease. The microscope has shown that minute changes in the nerve-centres are found almost constantly, either confined or most intense, in the region of the medulla oblongata, which is contiguous to the lower part of the fourth ventricle—that is, in the neighborhood of the respiratory centre, the convulsive centre and the centre for deglutition. The change in the nerve elements themselves, consists in a granular degeneration of the ganglion-cells of these regions. In the dog the changes are similar in character and distribution.

Differential Diagnosis.—Hydrophobia, *i. e.* the dread of water, may be present in certain maladies that have nothing in common with rabies. Women have been hydrophobic during pregnancy, being entirely free from it after delivery. It is necessary to be aware of such peculiarities to avoid committing criminal errors. Vidal mentions an instance in which a terrible mistake occurred. A decidedly rabid subject died in the hospital of a large city. Shortly after a man afflicted with a severe angina was admitted and placed in the same ward. A few hours later the visiting physician, whose mind was completely occupied with the terrible sufferings of the deceased, was informed by his assistant that a patient had been admitted who was unable to swallow. An extemporaneous diagnosis of hydrophobia was made, which was confirmed when the patient refused to drink. Force was used and met by violent resistance. The patient was secured, upon which convulsions set in, the case terminating fatally next day. The autopsy showed the mucous membrane of the fauces red, swollen and covered with adhesive mucus—all the signs of an intense angina—which did not permit the patient to swallow even liquids. Similar instances may have frequently happened in former years, and are attributable to the cruel treatment adopted where the least suspicion of rabies existed.

In cases where throat spasm is absent and great mental excitement early occurs, the diagnosis is a matter of great difficulty, and when no history can be obtained, the disease may be confounded with acute mania. When the general muscular spasms predominate over the respiratory spasm, even in the early stages, it may resemble tetanus, from which hydrophobia is distinguished by the

late period after injury at which the symptoms develop, and by the absence of trismus and continuous spasm. But the period which intervenes between the occurrence of an injury and the development of the tetanoid disease may vary considerably, and the tetanic attack may not take place under eight or ten weeks after the wound is completely closed. Although the character of the convulsive symptoms in hydrophobia differs generally from tetanic spasms, too much weight must not be laid on this, since there is probably a tetanoid form of hydrophobia.

Nature of the Contagium.—At present nothing is known about the nature or composition of the poison, or the circumstances necessary for its production. It is not even certain whether it be organic or inorganic, and the hypothesis that infection is due to the presence of a microörganism is only to be preferred because it agrees better with the facts. In support of this hypothesis the period of incubation is against infection being caused by substances which, from their chemical or physical peculiarities, are injurious to the organism, as in that case the symptoms appear immediately. If the virus of hydrophobia is supposed to consist of microorganisms, the period of incubation, when not of great length, is more readily understood. It may be supposed that these organisms are transferred in too small numbers to do harm, but that they multiply in the infected person, and when a certain degree of intoxication is reached they manifest their injurious influence. M. Pasteur believes that the virus of rabies is a living microorganism, and that like some others, it produces in the tissues it invades an excretory substance by which, when present in sufficient quantity, its own development and increase are checked, as are those of the yeast ferment by the alcohol produced in the vinous fermentation.

Causes and Propagation.—In regard to the cause of rabies in the dog, I believe with Youatt, that rabies never develops spontaneously, but is always propagated by the specific virus. All experiments to produce rabies in dogs spontaneously have failed; heat starvation, thirst, unwholesome food or close confinement have not caused any approach to a state of rabies, and the disease does not seem to have any connection with the period of sexual heat. This is further corroborated by the fact that rabies, although met with in every climate, and at all seasons of the year, is unknown in some countries—in the Isle of Cyprus, for example, and in Egypt. And Dr. Heineken states that curs of the most wretched description abound in the Island of Madeira; that they are afflicted with almost every

disease, tormented by flies, heat, thirst, and famine, yet no rabid dog was ever seen there. Rabies is comparatively rare throughout the West Indies. It was imported to Jamaica after the island had enjoyed an immunity from the disease for at least 50 years. Hydrophobia is more common in Canada, and in New England than in the Southern States, and as a general rule is found more in northern than in southern latitudes. Northern Europe, however, has furnished a greater number of cases than perhaps any other part of the globe. The disease is, according to Youatt, mainly propagated by the fighting dog in the city, and by the cur or lurcher in the country; in fact, by those dogs which minister to the vices of the lower classes in town or country. The majority of cases in man are contracted from straying or pet dogs.

(*To be concluded.*)

1020 Sixth Street.

Reports from the Hospitals and Asylums of the Pacific Coast

GERMAN HOSPITAL,

San Francisco, Cal.

Under the Care of J. F. MORSE, M. D.

[Reported by H. Hoffman, M. D., Resident Physician.]

A Series of Resections.

Case I. F. P——, 35 years of age, admitted June 28, 1887, was run over and sustained a fracture of the right ankle joint. Was treated in the country for three weeks. Patient, a strong and healthy man; temperature normal. Tibia protruding through wound of soft parts for space of two inches; edema of the foot which is dislocated; unhealthy appearance of the wound. After careful disinfection, an Esmarch's bandage was applied and a resection of the joint made after v. Langenbeck's method. Two inches of the tibia removed; lower fragment of fibula removed entire, measuring three and a half inches; articulating surface of astragulus also removed; antiseptic dressing. Patient remained without fever until his departure. At the end of two weeks gypsum bandage applied; renewed at the end of three weeks. Patient dismissed at the end of eight weeks with a fresh plaster of Paris cast.

Case II. Aug. S——, æt. 11 years, has been sick for eight months with hip-joint disease. Remained in bed during that period. A spontaneous luxation upon the dorsum of the ilium occurred. Patient extremely anemic; dullness on percussion over left lung at apex; urine free from albumin; a large fluctuating swelling over left gluteal region. Operation (v. Langenbeck's) on

the 27th of June. Anesthetic employed, a mixture of chloroform and oxygen; about 100 grammes of pus evacuated; resection of the head of the femur above the trochanter minor; scraping out of acetabulum; double drainage tube; suture of wound; antiseptic bandage; dressing changed at end of a week; at the end of three weeks plaster of Paris cast applied. After forced feeding the patient became so stout that it was necessary to cut open the plaster cast over the abdomen. Lung symptoms disappeared. At the end of five weeks new cast; wound entirely healed. Taylor's apparatus applied seven weeks from date of operation, and patient sent home.

Case III. Chas. W——39 years of age, has been troubled with an abscess in the right inguinal region for one year and a half. Patient strong and well developed; lungs and kidneys normal; right femur flexed at angle of 35°; above Poupart's ligament, fistula with deep canal extending backwards along ilium; temperature at night, 39.5° C; pressure over trochanter extremely painful, as well as when the joint surfaces are pressed against one another. Roser-Nelaton's line normal. Edema of entire limb. Operation on the 14th of August. Resection of the hip joint, after v. Langenbeck. Anesthetic, mixture of chloroform and oxygen, given by Dr. Kreutzmann. Difficult enucleation; destruction of bone far below the trochanter; bone removed one and a half inches below trochanter minor; acetabulum scraped; communication with pelvis could not be found. Two drainage tubes, suture, antiseptic bandage (which is changed twice a week for the first three weeks). The resection wound heals rapidly; the fistulous opening above Poupart's ligament still persists, although the patient has ceased to have pain, has grown stout and is able to get about on crutches.

Case IV. Mr. H—— noticed, three weeks ago, a swelling on the inner side of the left femur, immediately above the knee, which prevented him from walking. He therefore entered the hospital. Young and healthy man. Tumor over internal condyle of femur the size of a fist; without fever. Diagnosis—osteosarcoma. Consultation with Dr. Boyson, of this city, a friend of the patient. Diagnosis confirmed. Amputation at middle of thigh; antiseptic precautions; bandage removed at end of eight days. In two weeks the patient left the hospital. Microscopical diagnosis of tumor, which extended through the condyle into knee joint, large-celled sarcoma.

Case V. Miss H——, aet. 15 years; confined to bed for four years. First had coxitis of right side, which terminated in complete anchylosis. For the last twenty-one months has had inflammation

of left hip joint. Patient extremely cachectic; blue lips and finger-nails. Well marked dullness on percussion over left apex as far down as second rib. Crepitation in lung distinct. Tubercle bacilli in sputum, which was enormously profuse. Urine cloudy, and rich in albumin. Trochanter major one inch above the Roser-Nelaton line. Two large fistulæ in thigh, covered with dirty black granulations; one was situated on outer side of thigh, the other in inguinal fold. Operation on the 8th day of October, v. Langenbeck's incision. Head of bone completely destroyed; removed in pieces; scraping out of acetabulum and fistulæ. Patient nearly died on table, and recourse had to be made to hypodermic injections of ether and whiskey. Wound sutured and drained. Dressing changed in first week every two days on account of extremely profuse secretion. Patient rallied well from operation; gained ten pounds in three weeks, and was dismissed from the hospital at the end of eight weeks, with a small fistulous opening in groin. The expectoration ceased almost entirely, but some albumin still remained in the urine, although greatly reduced in amount.

Case IV. Mr. C—— shot himself two days before admission, in lower part of right leg. Healthy man, with slight fever. Pressure on malleoli very painful, especially over external malleolus. An incision made over latter, and bullet extracted. Several days later high fever, 40° C. at night; ankle joint greatly swollen and painful. October 15th resection of ankle joint, after v. Langenbeck. Tibia found carious, denuded of articular cartilage. Dressed in the usual manner. At the end of five weeks wound entirely healed, and patient is permitted to leave the hospital, with plaster of Paris cast.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By Wallace A. Briggs, M. D., Sacramento, Cal.

Puerperal Fever. *Causation.*—In opening the recent discussion on puerperal fever before the Obstetric Section of the British Medical Association, Dr. Playfair used the term puerperal septicemia, interchangeably with puerperal fever. He said: "I take it to be now almost universally admitted that puerperal septicemia is practically the same thing as surgical septicemia, a disease caused by poison absorbed through the genital tract into the system of the patient, which poison may either originate in her *de novo* from the decomposition of some of the organic matters resulting from child-birth, such as coagula, lochial discharge, and the like, or which may be conveyed to the patient from without, by septic matter

being brought into contact with her, as through such channels as foul sponges, infected hands of practitioners or nurses, or suspended in the atmosphere, as in rooms into which sewer gas finds its way."

In these views DR. BYERS substantially concurred.

DR. MADDEN expressed the opinion that "all forms of septicemic fever consequent on parturition and occurring within the puerperal period, are the manifestations of a specific puerperal infective or communicable disease, whose character is largely modified by the general condition of the patient and the intensity of the septic inoculation, as well as by what older writers termed the prevailing epidemic constitution of the atmosphere." This puerperal sepsis," he further said, "may be introduced in various ways, namely: First, from infection with septic matter, or by microörganisms emanating from other puerperal patients. Secondly, by the micrococci of other clinically allied epidemic diseases; and lastly, the disease may result from autoinfection with self-generated septic matter."

DR. ROBERT BARNES divided puerperal fever into three forms: 1. Endosepsis, into whose causation three factors enter: (*a*) the blood of the *gravida* with its increase of fibrin, of water, and of total volume, with its diminution of red globules, and its occasional surcharge of excrementitious products. (*b*) The blood of the parturient, with its excess of the products of muscular and of nervous wear and tear. (*c*) The blood of the puerpera, with its load of waste from the disintegration of the hypertrophic uterine tissues. 2. Autosepsis, whose predisposing causes are the dyscrasiæ, excessive hemorrhage, and relaxation of the uterus, and whose exciting cause is poison of the patient's own making, absorbed either from the tissues or from the parturient canal. 3. Exosepsis, poisoning from without, from the cadaver, from scarlatina, diphtheria, measles, variola, erysipelas, and enteric fever. The action of all these causes is intensified by the checking of excretion by the damp and cold and the ill ventilation of winter.

Prevention.—To this end, after the expulsion of the placenta, Dr. Playfair secures thorough contraction of the uterus by gentle friction or kneading for at least twenty minutes, and by the routine administration of ergot by the mouth, followed, if necessary, by a subcutaneous injection of either ergotine or ergotinine. He then inspects the perineum, and closes all lacerations extending beyond the fourchette. Last, and most important of all, he adopts strict antisepsis before, during, and after labor. To each monthly nurse he gives the following set of antiseptic rules, on whose observance he insists:

(1) Each patient is furnished with two antiseptic solutions—perchloride of mercury, 1:1000, tinted with litmus, and carbolized oil, 1:8. (2) The nurse shall keep standing by the bedside of the patient a basin of the perchloride solution, in which she shall thoroughly rinse her hands whenever she touches the patient in the neighborhood of the genital organs before, during, and for a week after delivery. (3) All sponges, vaginal and rectal pipes, catheters, etc., must be dipped in the 1:1000 solution before use. Slippers, bed-pans, etc., must also be sponged with it. (4) Vaginal pipes, enema tubes and catheters, must be smeared with carbolized oil before use. (5) Unless ordered to the contrary, the vagina must be

syringed twice daily with a solution of Condy's fluid of a pale pink color. (6) All soiled linen, diapers, etc., must be immediately removed from the bedroom.

In addition, the physician himself should observe the following precautions: 1 Cleanse the hands and especially the nails thoroughly with soap and water before using the antiseptic lotion. (2) At an early stage of labor, syringe the vagina and sponge the vulva with the perchloride solution. 3 When the head distends the perineum, sponge the vulva again with the same solution. (4 For lubricating the fingers use either carbolized oil or carbolized vaseline instead of cold cream, lard, etc. (5) Use sanitary towels to receive the lochiæ.

Dr. Byers' rules for nurses are essentially the same as those of Dr. Playfair except that the former prescribes that no nurse who has been in recent contact with either puerperal fever or other infectious disease shall begin attendance on another puerperal case before reporting to the physician for disinfection. Dr. Byers thinks the physician should make as few vaginal examinations as possible and should "follow down the uterus during the birth of the child's body, express the placenta, and then keep up the firm pressure for some time before putting on the binder." To prevent the introduction of air into the vagina the patient should lie on her back as soon as the child is born, and for some days after, and the binder should be applied firmly. To facilitate drainage of the vagina the bladder should be emptied in the knee-elbow position.

Dr. Madden believes that the use of suitable food, fresh air, and tonics is of the first importance in the prevention of puerperal septicemia. With this view he prescribes a mixture of chlorate of potash, iron, and quinine, to be taken during the last two months of gestation. He has never seen puerperal septicemia supervene in a patient so treated.

While believing in antisepsis, at least in hospital practice, Dr. Sloan deprecates the routine use of vaginal injections—the introduction of foul matter is favored by them.—*British Medical Journal*, Nov. 12, 1887.

SURGERY.

By T. W. Huntington, B. A., M. D., Surgeon Southern Pacific Co's Hospital, Sacramento, Cal.

The Radical Cure of Hernia.—This subject was discussed at length at the meeting of the British Medical Association of 1887, and several papers then read in the section of surgery, have recently been published in the *British Medical Journal*, December 3d, 10th, and 17th, 1887. The one point upon which every writer is unanimous is the greater safety and certainty of the open treatment by free incision under antiseptics, as compared with the more complicated subcutaneous operations, requiring special instruments and peculiar skill and experience.

Mr. W. T. Stoker, in endorsing the open method of operation, pointedly says, that while it is not a convincing argument that it is easy, still we must "remember that all surgeons are not equally gifted by nature or endowed by opportunity." He deprecates the use of silver wire sutures in closing the walls of the canal and their permanent retention, believ-

ing that it is neither sound in theory nor necessary in practice. He says: "It seems absurd to suppose that vital structures will, without undergoing absorption and allowing the sutures to cut through, bear the strain necessary for the wires to exert, if they are to have the power of retaining hernial protrusions." He believes in the closure of the canal by the exudation and organization of lymph, and operates as follows: The sac is exposed and carefully separated from the cord as high as the external ring and for two inches below. It is then ligatured above and below, and divided between. The proximal portion of the sac is twisted "till a sense of resistance is felt," so as to secure obliteration of the canal without risk from sloughing. Two silk sutures are then introduced, passing through the pillars and walls of the canal, transfixing the twisted sac between the inner and outer walls, then brought through the skin about one inch on each side of the incision and tied over a leaden plate. He considers support of the inguinal region for some time after the operation as desirable, but condemns any form of pad as hurtful.

Mr. Kendal Franks urges the necessity of perfect asepticism, and believes that the operation and its results are sufficiently established to justify attempts at cure in cases which are only slightly inconvenient. He makes the skin incision on a higher plane, but parallel to the inguinal canal. In recent small herniæ, if the sac slips back into the abdomen, he simply closes the rings. In old cases, if the sac is an acquired one, thickened and adherent, he clears it from the surrounding parts, then opens it, and having passed a finger through to the internal ring, passes a silver wire suture through one pillar of the ring and then through one side of the sac. The needle, unarmed, is passed on the other side, then threaded with the same wire and withdrawn. This, when fastened, closes the ring and fixes the sac in such a way as to obliterate its cavity. Below the sutures the sac is excised. He has twisted the sac, but does not find it more advantageous. He sees no objection to the retention of the wire suture if the wound is kept strictly aseptic, and in closing it he uses buried sutures.

Mr. Arthur E. Baker states at the outset that he has never operated "unless there was some special reason for abandoning the palliative treatment by trusses, etc.," though he regards the operation "as devoid of all risk," if performed with thorough antisepsis. He uses silk in closing the canal, as being easy to procure and render aseptic, and comfortable to manipulate. He operates by the usual incision, clears the neck of the sac by peeling off the structures with the thumb nail, and passes a stout silk thread under the neck, close to the external ring. Before tying this, the sac is opened below, in order to see that no gut or omentum is included; the sac is then tied *en masse*, and cut across half an inch below the ligature. The scrotal portion is left to take care of itself, as the operator believes he has seen injurious results from interference with it. A Liston's needle is armed with one of the threads attached to the sac and then passed up the inguinal canal, guided by the finger, which carries the stump before it. The needle is forced through one border of the internal ring and out through the external oblique muscle. It is then unthreaded and withdrawn, and the same suture is made on the opposite side with the

remaining end of the ligature. The two threads are now drawn up and tied, which draws the stump of the sac well up into the abdomen and closes the ring. Four to seven stitches are then passed through the wall of the canal in a similar manner, at intervals of one-quarter of an inch, and then tied from above downwards, care being taken to see that all are in front of the vas.

Dr. A. Rabagliati exposes and clears the sac, and then removes it with the knife, together with any omentum which seems redundant. The edges of the peritoneum are approximated by fine catgut sutures. The pillars of the ring are raised and approximated by a second row of sutures, and the skin wound is closed.

Mr. Mitchell Banks, who presents a series of 108 cases, operates as follows: The sac, having been dissected out, is opened, all bowel is replaced, and adherent omentum tied or cut away. The sac is then pulled down, ligatured as high up the canal as possible, and removed. The pillars of the ring are brought together with two or three silver sutures, which are left in position. In femoral hernia the sac is dissected out and removed, but no attempt is made to close the aperture. He concludes (1) that the prevalent notion that wearing a well-fitting and well-acting truss is a great burden is vastly exaggerated. (2) In children operative procedures are very seldom required; a well-fitting truss worn for a sufficiently long period will cure the vast majority of cases. Those with adherent omentum or large herniæ are appropriate for operation. (3) The operation is to be recommended and urged in small femoral herniæ, with adherent omentum, and in inguinal herniæ under similar conditions, and when excessively large. (4) No person should be subject to operation who can, with comfort, wear a truss which keeps his bowel securely in position. (5) He strongly recommends every one to wear a light support after the operation, and does not believe that this destroys the adhesions. He infers that there is no such thing as a radical cure of hernia, the term being misleading. "A man who gets a rupture, has naturally a weak and yielding canal or ring, and when you have patched him up you can only put him in the same position as he was before the rupture." He further states that operations do not close the ring, and that parings, scrapings and freshenings of the inguinal canal are utter nonsense. "When an inguinal hernia is big enough to warrant operation, there is commonly little canal or ring left." He says that he brings the pillars together with sutures, simply with the object of holding the parts together temporarily, while the wound heals, so as to prevent danger from coughing or straining, as in big operations he leaves the wound quite open.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By Wm. Ellery Briggs, M. D., Sacramento, Cal.

Ocular Complications of Measles and their Treatment.—At the November meeting of the Société Medico-Pratique, M. A. Trousseau presented the following facts: Among the eruptive fevers measles tends most frequently to produce ocular complications. The external parts of the eye are usually affected. It is rare that the deeper structures are implicated. At the invasion, the conjunctiva alone is attacked. It usually

begins as a simple but occasionally as a catarrhal conjunctivitis. At this period the cornea is rarely affected. During the course of the disease, the conjunctivitis may become chronic; occasionally the discharge becomes purulent, the swelling of the lids may increase, and the cornea become the seat of trouble. Sometimes phlyctenular conjunctivitis, blepharitis, or ulcers of the cornea are observed. Ocular complications are especially frequent during convalescence, and it is during that period that a majority of the phlyctenæ which may extend to the cornea are seen. Grave diphtheritic conjunctivitis, pseudo-membranous conjunctivitis, and rebellious eczematous blepharitis may follow; the lachrymal passages may suffer, and, finally, phlyctenular keratitis sometimes exists. Photophobia is usually present. After complete recovery, measles also predisposes to diseases of the eye and their recurrence. Purulent and catarrhal conjunctivitis should be treated with cold compresses of a 4 per cent. boracic acid solution, and in the former, recourse should be had to cauterization with a 2 per cent. nitrate of silver solution. Yellow oxide of mercury ointment should be used in phlyctenular conjunctivitis; oxide of zinc or red precipitate for blepharitis. A solution of salicylate of eserine will be necessary in keratitis.—*L'Union Médicale.*

Antipyrin in Acute and Painful Affections of the Eye—Dr. Geo. S. Ryerson reports (*Med. Record*), three cases in which he used antipyrin to relieve the pain in acute inflammations of the eye with favorable results. The three cases in which he administered it are as follows:

Case I. J. W——, 58 years old. Extracted cataract August 31, 1887, without iridectomy, which was followed by acute plastic iritis. Severe pain in eye and head, relieved by sedatives for a time only. There was some pyrexia and he gave three doses of 20 grains each at intervals of three hours. The relief of pain was almost magical. He had no further difficulty in relieving pain, and the inflammation seemed also to decline.

Case II.—Mrs. K——, 50 years of age. Nov. 17, 1887. Acute glaucoma, secondary to relapsing iritis, and exculsion of the pupil. Severe pain not relieved by cocaine and eserine, and only partially by morphine. Forty grains of antipyrin in two doses, with an interval of three hours, completely relieved her. The drug was repeated at intervals, according to the pain, for several days, when an iridectomy was performed. Patient was in very poor general health.

Case III. Mrs. B——, aged 44. Nov. 22, 1887. Acute iritis, one week duration; numerous adhesions between the margin of pupil and lens. She had had several attacks without any known cause. The pain, which was very intense at night, was relieved at once by 20 grains of antipyrin. The patient had been treated for 24 hours previously with atropine, without much relief.

Notes on Two Cases of Exophthalmic Goitre.—Dr. J. F. Barbour gives (*American Practitioner and News*) a report of two cases of exophthalmic goitre which he had treated successfully with the galvanic current. The first case was almost entirely cured, and when seen some months after treatment the improvement had continued. The second patient was a large, and otherwise healthy German girl. When first seen there were two tumors—one on each side of trachea. They were soft and pulsating,

and on auscultation a bruit was heard in them. On the right side the enlargement was the size of an orange, and on the left as large as a walnut. The patient's eyes were prominent, the right one projecting somewhat more than the left. She complained of excessive palpitation of the heart, shortness of breath, and hot-flushes, which were more pronounced on the right side. The dyspnea was brought on by exertion or excitement. The treatment consisted in the application of the constant current over the pneumogastric nerve and through the tumors. A belladonna plaster was ordered to be applied over the heart, and tonics administered. She improved slowly but steadily under the treatment; the pulse, which at first was 108 per minute and irregular, was reduced to 80. The current was interrupted several times during treatment, and each intermission was followed by an exacerbation of the symptoms. After several months treatment the dyspnea and palpitation were no longer troublesome, and the tumors were firm and about half their original size. Electrolysis was then performed. The negative pole was armed with a needle, insulated to within an inch of the point, which was plunged directly into the body of the tumor, the other pole being held in the hand. The current was then turned on slowly until 15 cells were applied. In a few moments the goitre could be felt to soften. The circumference of the neck being reduced three fourths of an inch at one operation. After several operations the tumors completely disappeared. The exophthalmos was somewhat improved. This and a semi-occasional flush is all that remained of the symptoms.

DERMATOLOGY AND VENEREAL DISEASES.

By G. L. Simmons, Jr., M. D., Sacramento, Cal.

Gonorrhœa and Sterility.—Dr. Kroner (Breslau), in the German Gynecological Society, oppose the views of Noggerath and Sänger relative to the effect on pregnancy of a previous gonorrhea in the female. He reported on the early and late puerperium of ninety-seven mothers and children. The majority of the latter being undoubtedly specifically gonorrheic. On the strength of his investigations, Kroner holds that the belief is unfounded that gonorrhea is injurious to pregnancy so as to give rise frequently, like syphilis, to abortion. He is equally skeptical with reference to the frequency of sterility traceable to gonorrhea in the female, and emphasizes the importance of examining the man in every case for azoospermia or oligozoospermia, due to gonorrhea on his part.—*American Journal of Obstetrics*, December, 1887.

Peculiarities in Gonorrhea.—Dr. Mauriac (*Journal de Méd. et de Chir. Prat.*) called attention in a recent clinic to the idiosyncracy altogether special to gonorrhea—pain in the heel. At times this pain may become of extraordinary intensity; its exact location is difficult to determine, and it is doubtful whether the cause is owing to the formation of a serous sac or to a periostitis. Its persistence is often remarkable. Dr. Mauriac mentions one of the remote complications of a gonorrhea in the shape of indurated bodies in the cavernous portion of the penis. These may be of sufficient size to cause deformity; and, furthermore, they have a tendency to increase, rather than diminish, with age. He states

that their presence is not a sure indication of the contraction of a gonorrhea, as they also occur in a similar location in rheumatism, gout, or diabetes.

Mixed Gonorrheal Infection in the Female.—Dr. Bumm, Würzburg, read a paper upon this subject before the German Gynecological Society, September, 1887. The term "mixed infection" means the penetration of two different kinds of microörganisms. The usual process is, that at first one species excites morbid alteration in the organ invaded, and on the territory thus prepared, the second species takes root. Thus, as a lung affected with pneumonia furnishes the best soil for the penetration and development of the tubercle bacilli, so the same process may be observed in the most manifold ways in gonorrheal infection of the female genitals. He considers the various regions of the female genital tract which come under observation in this respect. Thus, the frequent so-called simple bartholinitis, is by no means due to the gonococcus as such, as Bumm has demonstrated, but to germs subsequently entered, whether it be the staphylococcus pyogeneus, aureus, or putrefactive bacteria, which led to suppuration or cyst formation, with offensive contents in the gland affected with gonorrheal disease. The small abscesses in the urethral wall which are occasionally observed in the course of gonorrhea, are always caused by the later entrance of microörganisms, which directly produce suppuration. Nor is there a true gonorrheal cystitis as was formerly generally accepted; the gonococcus alone causes no cystitis; this it done only by other microbes which penetrate into the bladder in connection with disease of the urethra. On the same process are based the inflammations in the parametral cellular tissue, occurring as sequels to gonorrhea and even the disease of distant joints. It is probable, too, that many cases of isolated tubal tuberculosis depend upon this mixed gonorrheal infection. *American Journal of Obstetrics*, December, 1887.

MATERIA MEDICA AND THERAPEUTICS.

By Wm. Watt Kerr, M. A., M. B., C. M., Professor of Therapeutics, University of California, San, Francisco

Jhambul in Diabetes Mellitus.—Dr. W. H. Morse states that the pulverized bark and seeds of this plant, given in five grain doses, thrice daily, is an efficient remedy in the treatment of this disease. He says that by its administration the quantity of urine is diminished, the specific gravity lowered, and the amount of sugar lessened. Jhambul is a small evergreen plant, indigenous to the humid regions of India.—*Therapeutic Gazette*, December, 1887.

Thymol in Diabetes Mellitus.—Prof. Bufalini has made some very interesting, and what will probably be important, observations on this subject. It would appear that the drug has not any direct action upon the formation of sugar, but, by acting as an intestinal disinfectant, it prevents the diarrhea and gastric disturbance consequent upon an exclusively proteid diet, which, in other respects, is so beneficial to diabetic patients. He also finds it very valuable in the treatment of acetonemia, and therefore concludes that "acetone is formed in the intestine by abnormal fer-

mentation of the sugar excreted by this channel, and that the ferment is an altered gastro-intestinal mucus."—*Medical News*, Dec. 3, 1887.

Saccharin.—This new remedy is antiseptic and sweetening in its properties. As an antiseptic, it ranks with salicylic acid and thymol, but does not interfere with the digestive juices or ferments, and has no action upon the tissues themselves, being excreted by the kidneys unchanged a few hours after it has been ingested. It may be given where sugar is contraindicated, as in diabetes, or wherever there is a tendency to fermentative processes taking place in the blood; also as an excipient for such medicines as chloride of iron, cascara sagrada, and salicylate of sodium. One to one and a half grains will be found sufficient to sweeten a breakfast cup full of tea or coffee.—*Therapeutic Gazette*, Dec. 15, 1887.

Cocaine as a Nervous Stimulant.—As the result of experimental research, Mosso concludes that cocaine is the best nervous stimulant at our disposal and will be valuable in cases of extreme nervous depression, chloroform, chloral, or ether poisoning. Its influence on animal temperature is well marked, having in one case caused a rise of 4° C. within half an hour. As much impure cocaine is present in the market, the following simple tests for the purity of the hydrochlorate of cocaine will be of service: "The hydrochlorate should be absolutely neutral; volatalize completely; form a clear and colorless solution in water; give a colorless solution with strong sulphuric acid, and should not reduce permanganate of potassium immediately."—*Dublin Jour. of Med. Science*, Dec., 1887.

Anti-bacterial Action of Iodoform.—In the January number of the *American Journal of Medical Sciences* Dr. Jeffries reports an elaborate series of experiments with iodoform, which tend to show that this preparation has no direct action as a germicide, but has the power of retarding bacterial growth and diminishing the odor of putrefaction. He arrives at the following conclusions regarding its use in surgery: (1) "Iodoform not being a germicide, is not a fit substance to use to procure asepsis of instruments, materials, or wounds." (2) "Iodoform is allowable, with the present state of our pharmacopeia, in infected wounds, when the true germicides are contraindicated, as by danger of poisoning or impracticability." (3) "As has long been known, iodoform has a decided tendency to stop serous oozing, and, therefore, may be indicated in wounds where the moisture threatens the integrity of the aseptic or antiseptic dressing."

Strophanthus.—The trials to which this new cardiac tonic has been subjected during the past year, have proved that Prof. Fraser has given us a drug which is likely to have a permanent place in the pharmacopeia. The action of strophanthus is to increase the force, but diminish the frequency of the cardiac contractions—the arterial pressure is raised and free diuresis is produced. As there is no increased flow of urine when strophanthus is given to a healthy person, it is evident that the diuresis is not due to action on the renal tissues, but to the increased flow of blood through the kidney. From the above description the similarity between the actions of this drug and digitalis is very evident; and, although some attempts have been made to discriminate between cases adapted to either remedy, no definite indication has been discovered which will enable us to choose between them, strophanthus having succeeded where digitalis

failed, and *vice versa*. The usual dose of strophanthus is from five to ten minims of the tincture, three or four times daily. Strophanthus is more speedy and less persistent in its effects than digitalis—neither is it a cumulative poison.

Antifebrin in Typhoid Fever.—Dr. J. Howell Way, reports thirteen cases of typhoid fever which had occurred in his private practice during the past autumn, and had been treated with antifebrin. His experience with the remedy was so highly satisfactory, both in reducing temperature and dispelling nervous symptoms, that he regards it superior to all other antipyretics formerly used in the treatment of this disease, and closes his paper with the following remarks: "In conclusion, the following advantages may, I think, be claimed with justice for antifebrin over all other antipyretics in the management of the hyperpyrexia of enteric fever: (1) The size of the dose is small, and from the bland and unirritating character of the drug, is easy of administration and not liable to produce gastric irritation. (2) The happy effect of the drug in reducing hypernormal temperature and in rendering the patient more comfortable by its soothing effects on the irritable state of the nervous system accompanying febrile processes. (3) The absolute safety of acetanilid when used in medicinal doses."—*Medical News*, January, 1888.

MEDICINE AND PATHOLOGY.

By Albert Abrams, M. D., Demonstrator of Pathology, Cooper Medical College, San Francisco, Cal.

The Treatment of Croupous Pneumonia.—Mosler reviews the modern methods of treatment in this disease. The old plan of venesection had, owing to its indiscriminate use, sacrificed many lives; still, in many selected cases, it must not be cast aside. In the first stage of the disease in robust plethoric individuals with high fever and abundant hemoptysis, venesection is indicated; also in the further course of the disease, if attended by severe dyspnea, cyanosis, and hebetude, conditions due to carbonic acid intoxication. There was a time when digitalis was administered in every case of pneumonia. In consequence of dangers involving the heart, he has entirely suspended its use. Aside from the gastric disturbance which it produces, its cumulative action must be feared. Cold baths, when used indiscreetly, have done much harm, and he dispenses with them; believing, however, that local hydrotherapeutic measures may be adopted with advantage. With the use of antipyretics and tincture of veratrim viride he has sought to influence the course of the affection, but without result. Our modern theories, with regard to the etiology of infectious diseases, suggests the use of some specific which will destroy the micrococci of pneumonia. As yet this remains to be discovered, but none can predict the future possibilities of medicine. The remedy on which Mosler places most reliance is, tartar emetic in small doses. Experiments on animals with tartar emetic induce hyperemia of lungs, bronchi and trachea. Whether this hyperemia, by furnishing a fresh supply of blood, rapidly removes the waste products of the pneumonic process, or the emetic action, followed by diaphoresis due to the tartar emetic, removes the micrococci, he is unable to explain. This much is

true, however, that forty cases treated by this agent in his clinic, yielded excellent results. Expectoration was facilitated with less pain, and the sputum was less gelatinous. No disagreeable action of the drug was observed.—*Deutsche medicinische Wochenschrift*, Nr. 47, 1887.

FRÆNTZEL.—Pneumonia is an infectious disease, and resembles erysipelas in its febrile course. The rapidity of the pulse in this disease must receive the utmost consideration. A rate of over 120 to the minute must be looked upon as unfavorable. The frequency of respiration, even up to 60, should cause little alarm, but delirium, on the contrary, must be feared. A daily examination of the respiratory apparatus is less necessary than that of the heart. The prognosis is less favorable when such complications as frequent diarrhea, purulent exudations, and icterus (bilious pneumonia occur. As a rule the prognosis is determined by age and habits of living. An abuse of spirituous drinks must be considered to be largely responsible for a fatal termination. As indications for venesection, cyanosis and dyspnea may be mentioned, and where the radial arteries are small and show high tension, more than 250 gm. of blood should not be withdrawn. Digitalis is contraindicated owing to its cumulative action, producing gastric disturbances and tendency to collapse. For the same reasons all antipyretics, from quinine to salol, must be dispensed with. No object is to be attained in reducing the temperature, for if such is attempted we must fear collapse and heart failure. Cold baths, for like reasons, are not used. For the pleuritic pains, friction with warm oil, warm applications, and morphine injections are far more serviceable than the application of the ice bladder. Agents for influencing the course of the disease or the destruction of micrococci have not been discovered. The method of treatment ordinarily pursued by Frænzel, is briefly as follows: Absolute rest in bed; fluid nourishment; lemonade for thirst; wine not allowed until the eighth day, provided patient has not been addicted to the use of alcohol; for delirium potatorum, wine, also brandy (not in large doses); and for insomnia, chloral; for the delirium of fever, morphine, subcutaneously—the latter subserves an excellent purpose in the delirium of inanition. The danger in pneumonia is always increased on the fifth day. Respiration is more difficult, expectoration begins to cease, the pulse is more frequent and small. At this time the following drugs are indicated: Camphor, valerian, musk, and wine. Champagne is contraindicated owing to the carbonic acid. For the pleuritic pains, counter irritants and cupping. For diarrhea, bismuth and opium. Opium and its preparations should be used more frequently. The use of expectorants should not be allowed.—*Centralblatt f. klinische Medicin*, Nr. 48, 1887.

Hypnotism in Therapeutics.—In an interesting paper on this subject, read before the Berlin Medical Society, DR. MOLL details his experiments and observations. In 1843, Braid, of Manchester, published the first work on hypnotism, and it was he who first used the latter method as a therapeutic measure. The experiments of Charcot at the Salpétrière, are well known. He differentiated three conditions of the hypnotized state, viz.: cataleptic, lethargic, and somnambulistic, any of which can pass from one to the other in the same person. Charcot's experiments were made in

the main on hysterical individuals; although others contend there is nothing in common between hysteria and hypnotism, and that the different forms of hypnotism are artificial and provoked by suggestion. The same conclusion is reached by Moll, after four months' study, at the Salpétrière. The individual to be operated on, is told, in a commanding voice, to think intently of sleep, the operator in the meanwhile gazing steadfastly at the subject, who, after a brief period, becomes hypnotized, when the necessary therapeutic suggestions are made. Different painful affections, such as neuralgia and headache, are relieved and often cured; movement is likewise improved in various paralyses. French authors have also reported success in hysteria, mophine habit, alcoholism, and menstrual disturbances. The author believes that not only functional but organic disturbances may be improved by hypnotism. He introduces the following case, showing the effect of suggestion: A hypnotized individual was told to take hold of a cold piece of iron; it was then suggested that the iron was very hot, which was followed by blisters on the hand. Only twenty-two per cent. of the individuals operated on were hypnotized. In the discussion which followed the reading of the paper, EWALD asserted that he failed to hypnotize a number of adults on whom he experimented, only succeeding in two young hysterical persons. He strongly opposed the use of hypnotism and suggestions as a part of medical treatment, on the grounds that no scientific knowledge is requisite for its accomplishment, and in consequence it may be indiscriminately resorted to by the charlatan. The public exhibition of hypnotism was commented on, and likewise the ill results following. MENDEL cited a case of periodical hysterical aphonia temporarily cured by hypnotism. He insisted that the many remarkable cases of hypnotism reported in Paris, occurred in individuals specially trained for this purpose. Continued hypnotism practised on healthy individuals makes them nervous, and on nervous individuals, more nervous. A number of hysterical persons have been benefited by hypnotism, but we must always consider that great harm can result from injudicious experimentation. If sleep does not follow after fifteen minutes' fixation of a glistening object, any further attempt should be postponed until the following day.—*Wiener medizin. Presse*, Nr. 47, 1887.

Lipogenic Diabetes.—According to PROF. E. H. KISCH, diabetes is a frequent concomitant of congenital and acquired obesity. Diabetes occurs in fifty per cent. of the congenital, and in fifteen per cent. of the acquired cases of obesity. He cites three different family histories showing the heredity of both pathological conditions. The urine should be examined in all cases of early developed obesity. The symptoms of diabetes mellitus in such cases, are most pronounced between the ages of thirty and forty. The conversion of one affection into the other is gradual. The frequent combination of diabetes and polysarcia, aside from irregular living and heredity, may be attributed to the muscles. The latter, in pronounced obesity, must, in consequence of fatty degeneration, be impaired in their activity, which necessarily interferes with their normal function, that of converting sugar into glycogen.—*Berliner klin. Wochenschrift*, Nr. 46, 1887.

Sacramento Medical Times.

JAMES H. PARKINSON, L. R. C. S. L, EDITOR.

SACRAMENTO: FEBRUARY, 1888.

THE STATE SOCIETY.

The annual meeting of the Medical Society of the State of California will be held in San Francisco, commencing April 18th, and as the time is now short, it will be well for each member to keep before him the necessity of being present. To those resident in the interior the trip to the metropolis has many attractions, while the enforced holiday cannot fail to recruit the energies of the busy practitioner, and thus return a material benefit. The Committee of Arrangements will endeavor to secure the same reductions from the transportation companies and hotels as in previous years, of which mention will be made in due course. A new and very desirable feature in connection with the meeting will be an exhibition of pharmaceutical preparations, surgical instruments, books, and other professional requisites. This will be on a sufficient scale to be of some practical utility, and will be open to inspection throughout the session. We have already alluded to the desirability of ensuring a proper discussion on those reports, and on such papers—the titles of which will be announced before hand—as demand it. It has been the almost invariable rule to curtly refer the papers read to the Committee on Publication, thus depriving the Society of what, with a judicious Chairman, is of the greatest benefit. The criticisms and opinions of the members are of great practical interest, and their absence in the past is much to be regretted. We suggested a remedy in the adoption of the plan prevailing in the National and other associations of appointing a member to open the discussion, the paper or a sufficient abstract being submitted to him in advance. In the absence of any by-law on this question, we commend the matter to the President for his consideration. We hope that the local profession will not indulge their hospitality by again tendering a banquet to the visitors. It is an impost and an imposition upon the resident members, and as

year succeeds year it becomes more burthensome. If a banquet be desirable it can be provided by subscription, a system which has been found, elsewhere, to work most satisfactorily.

DR. J. W. ROBERTSON.

We are pleased to announce that with this issue of THE TIMES, Dr. J. W. Robertson, assistant physician to the State Asylum for Insane at Napa, assumes charge of the Department of Meteorology. The prominence which California, as a health resort, is fast attaining before the world, demands that this subject should receive proper attention, which at the hands of this journal we now feel safe in bespeaking for it.

NOTES.

The Hendon Cow Disease Probably Jennerian Cow-pox.

We have already commented (*vide* TIMES, 1887, page 309) on the outbreak at Hendon, England, of the so-called milk scarlatina, and a statement of a criticism by Dr. George Thin of the original operations of Mr. Power and Dr. Klein was then given at length. The interest in the question has been greatly increased by a paper read before the Pathological Society of London (*Brit. Med. Jour.* Dec. 17, 1887) by Prof. Edgar Crookshank. The author reviews the methods and conclusions of the previous observers, summarizing them clearly and fairly, and then proceeds to record his own experience. His attention was first directed to the affected cows, in which he found an eruption on the teats and udders corresponding to that described by Dr. Klein; inoculation experiments and careful cultivations, gave results closely resembling those of the original observers. So far, the investigations of each may be said to have been parallel. We now come to the divergence. On November 26, 1887, Dr. Crookshank proceeded to investigate a fresh outbreak of the disease on four dairy farms. It had prevailed very extensively, and the milkers, in describing its progress, stated that frequently scabs, matter and blood would, during the process of milking, become mixed with the milk. The disease had been communicated to several of the milkers, causing the usual local symptoms, with, in some cases, constitutional disturbance. It was, therefore, in every respect, identical with the Hendon outbreak. On these farms there were 160 cows, nearly all of which

had contracted the disease. The milk, amounting to 1088 pints a day, was distributed to consumers, estimated at 1500 to 2000, yet there were no cases of scarlatina on the farms or in the villages. Dr. Crookshank therefore concludes that the Hendon disease was not scarlatina in the cow, and that in the Hendon milk the infection was from some hitherto unascertained human source. Having disproved the identity of the disease, Dr. Crookshank next attempted to ascertain its real character. It will be noted that all through these investigations the descriptions of the earlier stages of the eruption have rested on the statements of the cow-men, as it had never been seen until damaged by the hands of the milkers. This was felt to be so unsatisfactory that Dr. Crookshank visited the farm several times, and was finally successful in discovering a boy with the eruption on his face, which he unhesitatingly pronounced to be *true Jennerian cow-pox*. The subject was kept under careful observation; the eruption went through the well known stages, and, with lymph taken from the vesicles, typical vaccinia was produced in calves. An intelligent foreman, who said he had known the disease for twenty years, and who having been himself affected, asserted his belief in the protective influence of an inoculation thus describes its progress in the cow. It began as a hard pimple on the red teat; this got a white head; then came a blister with watery fluid which sometimes got like "brainy stuff" before it was broken. This is a very perfect clinical picture of typical vaccinia, which is distinguished from the various spurious pocks by the subdermal character of the vesicle, its umbilication and the presence of an areola. Dr. Crookshank is investigating the organisms found in the lymph, in order to determine, if possible, their exact significance. It will be seen that the question has now reached a most interesting stage, and future developments will be anxiously awaited. We learn from private sources that both sides are equally confident, and as the disputants each represent a government department, it will be impossible for the question to remain in its present state.

A Three Years' Graded Course for California Practitioners.

In our issue of January, 1888, we alluded to various comments which had lately been made on the general status of medical education in this country. The opinion was further expressed that a change in the direction of greater stringency could only be reached through the coöperation of the various Colleges and Boards of Examiners. It is with great satisfaction that we learn that at the

meeting of the Board of Examiners of the Medical Society of the State of California, held January 4th, 1888, the following resolution was unanimously adopted :

"WHEREAS, The law to regulate the practice of medicine in the State of California, provides that the Board of Examiners, in the discharge of its official duties, shall determine what colleges are in good standing, whose diplomas may be presented by applicants for certificates under the law; and—

"WHEREAS, It is apparent that the protection of the public and the best interest of the profession require a higher standing of medical education than that which is now adopted by many medical colleges: therefore—

"*Resolved*, That on and after April 1st, 1891, the Board of Examiners of the Medical Society of the State of California will not grant certificates to practise medicine on diplomas issued after that date, by colleges which do not require that all candidates for graduation shall have studied medicine not less than three full years, and shall have attended not less than three full regular courses of lectures, delivered during three separate years."

We believe that this step will meet with the unanimous endorsement of the profession, and that it will, in time, be followed by the demand for another year of study.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting Dec. 20, 1887.

The President, WM. ELLERY BRIGGS, M. D., in the Chair.

Fracture of Skull, with Depression of Outer Table.—DR. W. R. CLUNESS presented the case for Dr. Huntington. L. B——, æt. 50, entered the Southern Pacific Company's Hospital Dec. 14, 1887. In Nov. 1886, was struck on the head with an iron crib-board, producing a scalp wound at the junction of the sagittal and lambdoid sutures. He is now unable to give any very intelligent account of his condition subsequent to the injury. He was told that he remained unconscious for three weeks following the accident. There is a depression of the skull at the site of the original injury. Memory, especially of words, is decidedly impaired, hearing and vision upon the right side are likewise impaired. There is partial anesthesia of the entire right side and impairment of the general health.

DR. CLUNESS mentioned a case, which he had seen in Mendocino county in 1860. A man was thrown from a wagon, which had suddenly started, alighting on his head. The attending physicians found a well

marked depression at the posterior and superior portion of the left parietal bone. Mania supervened and the man was pronounced insane. While being conveyed to Stockton, he was seen by the doctor, who, with the concurrence of Dr. Barnett, trephined; removing a segment of bone and elevating the depressed portion, about one ounce of bloody serum escaped. Upon recovering from the effects of the anesthetic, he was perfectly rational, expressing much surprise at finding himself amongst strangers. The lucid period continued for four days, when he gradually relapsed and was ultimately conveyed to the asylum. After three months' detention he was discharged, and is at present living with his family, being in excellent health, though of feeble intellect.

Rodent Ulcer.—Dr. J. R. Laine exhibited a case, in which a large ulcer, two inches in diameter, occupied the surface of the upper and lower lids, right eye, extending to the brow and cheek. The eye was closed, but the eye ball was intact and could be seen at the upper and inner side. About seven years ago a scaly eruption appeared on the lower lid; subsequently a small pimple was seen. This came and went, till finally, in 1883, he was seen by Dr. W. E. Briggs, who believed that the case was one of lupus, and advised the extirpation of the affected parts. The patient would not submit, and placed himself under the care of various "cancer doctors." The question was now less diagnosis than treatment.

Dr. H. Voeller read a paper on *Hydrophobia* (published at page 62).

Dr. W. R. Cluness, in opening the discussion, said that he had never seen a rabid animal or human being. Some time ago the San Francisco *News Letter* had circulated queries amongst physicians in the State, inquiring their opinions as to the absence of rabies on this coast. He had replied that he believed this absence was due to its not having been imported. Dr. Thorne, of San Jose, had reported a case which he supposed was hydrophobia. He remembered having been informed that coyotes were very bold and numerous on the Norris Grant in 1850, and the following year the number had greatly decreased. His informant stated that he had seen many of these animals at that time apparently suffering from rabies. He subsequently ascertained from Mr. C. W. Clarke and Mr. H. M. La Rue, that the animals had disappeared about that time, but neither of the gentlemen remembered that they had presented the symptoms described.

Dr. J. R. Laine had not seen a case of rabies. He mentioned the current belief amongst old army men on the plains, that the bite of a skunk would produce hydrophobia.

Dr. H. L. Nichols said that a paper in his possession, which had been read before the Medical Society of London ninety-seven years ago, recommended the use of oil, internally and by inunction, as a specific.

Dr. G. L. Simmons, Jr., had noticed the absence of reports of hydrophobia in the local journals, and in looking over the files found a paper, in the *California State Medical Journal*, in which the absence of the disease was ascribed to climatic influences.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting December 27, 1887.

The President, J. D. ARNOLD, M. D., in the Chair.

A Case of Ovariotomy.—DR. O. O. BURGESS reported a case of ovariotomy in a young lady where the operation had been rendered very difficult from the peculiar anatomical arrangement of the parts. The two ovaries had coalesced and degenerated so as to form one tumor, from each side of which, a tube, which at first sight resembled intestine, but was, on examination, found to be a fallopian tube, passed to the uterus while from the vertex of the tumor a fibrous band passed upwards and gradually disappeared in the peritoneum. The fact that the displacement of the uterus was in all probability congenital, its descent having been prevented by the fibrous band, made it very strange that there never should have been any disturbance of the menstrual function.

DR. GEORGE CHISMORE had witnessed the operation, and regarded the case as one of extreme interest, it being the only instance in his experience in which the diagnosis of the character of the tumor was as difficult after the abdominal section as before it. The difficulty of the operation was very great, and no trace of ovarian tissue other than that forming the tumor could be discovered.

DR. J. O. HIRSCHFELDER was anxious to know whether the girl still continued to menstruate, as in such an event, the case might be able to throw considerable light upon the physiology of the menstrual process. The President suggested that any changes in the character of the menstrual fluid should be noted. Dr. Burgess replied that the girl had menstruated regularly since the operation, and that there was not any apparent change in the quality of the fluid.

DR. STALLARD thought that these facts tended to show that menstruation does not depend upon any one portion of the generative apparatus, for we had other cases similar to the one before the Society, in which both ovaries and tubes had been removed without arresting the monthly flow, and he therefore believed that the uterus and nervous centres were all that was necessary for menstruation.

SPECIAL CORRESPONDENCE.

NEW YORK.

[FROM OUR OWN CORRESPONDENT.]

The New York Quarantine; its Danger to the Country.—The Sloane Maternity Hospital and the Vanderbilt Clinic.—"Charity Ball" of the Nursery and Child's Hospital.

The mismanagement and defects of the New York quarantine establishment have by this time become pretty well ventilated. First came the developments made by the investigations of the committee appointed by the College of Physicians of Philadelphia, and of the Committee

on Hygiene of the Medical Society of the county of New York, of which that energetic and public spirited reformer Dr. John C. Peters, is Chairman. In the latter part of December, was published the report giving the results of the investigation made by the New York State Board of Health, the nature of which is sufficiently evident from the following extract. "It is the unanimous opinion of those posted on such matters, that it would be difficult to imagine a worse state of affairs than now exists at the Quarantine Station. It is hard to realize in this age of civilization that the harbor of the city of New York should be so inadequately provided with facilities for the prevention and extinction of an epidemic." The most recent investigation of all, was that made at the request of Mayor Hewitt, by the City Board of Health, acting in coöperation with a special committee of the New York Academy of Medicine, consisting of such men as Drs. E. G. Janeway, Stephen Smith, C. R. Agnew, A. Jacobi, T. Mitchell Prudden, H. M. Biggs, and Richard H. Derby. Their report was in substantial accord with the preceding ones referred to, and in transmitting it to Governor Hill, the Mayor, too, sent a letter, in the course of which he says: "It is evident that neither this city nor the State, nor any other portions of the Union, are free from the dangers of the spread of contagious diseases, unless the quarantine establishment at this port, under the control of the State authorities, is at once reformed and reconstructed. The danger of delay is too imminent to admit of any postponement whatever. I have, therefore, the honor to transmit this report to the Legislature, and recommend such action as will receive adequate provision against the dangers of contagious diseases which will be liable to break out as soon as warm weather approaches."

In the course of their report the committee point out in a forcible manner the effect likely to be produced upon the business interests of New York and the country at large, if cholera were permitted to invade the dense population of the city. It is estimated that $100,000 a day is received by those hotels in the city of New York from which people would flee if any alarm of cholera should become prevalent. The amount of money received over the counters of shops, from those who frequent the city to buy its innumerable wares, cannot be estimated. It is millions! while hundreds of millions are annually produced in values in the different factories. To disturb the peace and industrial interests of the city by permitting the iruption of cholera through defects in quarantine would inflict an injury upon business that is beyond computation. The time consumed in reaching San Francisco is about that of the maximum period of incubation of cholera. The germs of any of the contagious diseases admitted into the port of New York by inadequate quarantine arrangements, might be conveyed to any portion of the United States, fructifying as they went. Every citizen of the United States and British Provinces has, therefore, a personal interest in the condition of the New York quarantine. The existence of cholera in New York would cause the entire country to quarantine against the city. In this way, interstate commerce would be paralyzed or seriously embarrassed. As regards the effect upon the health and death rate of the people, no surmise can be formed, as that question would turn upon the efficiency of sanitary police. The law

of cholera, its propagation, limitation, and extinction are at the present time so well understood, that the disease may be said, without presumption, to be subject to scientific prevention or control.

The Sloane Maternity Hospital and the Vanderbilt Clinic, adjuncts of the College of Physicians and Surgeons, and the gifts of the children of the late William H. Vanderbilt, were formally opened under pleasant auspices during the Christmas holidays. On this occasion, the principal address was made by Professor T. Gaillard Thomas, who thus spoke of the objects and donors of the new buildings: "A very few years ago, the lying-in hospitals of the world were transformed into charnel houses by that terror of the maternal bedside, puerperal fever. Since then it has been so robbed of its terrors, that in hardly any of the populous centres does the death rate from this cause reach three in one hundred. If, in the establishing of these hospitals, the monarchial countries of the Old World have outstripped America, it is because of the endowment of large hospitals there. Americans have rather given to educational institutions and to the building of monuments and libraries. A magnificent example of worthy charity was established by the founding of the College of Physicians and Surgeons and its magnificent endowment, by William H. Vanderbilt. The Vanderbilt Clinic, a noble tribute from his four sons to his memory, is about to be opened. In these halls the art of medicine is to be studied at the bedside. The student will not be confined to the assimilation of the knowledge and ideas of others, but will see and study for himself the effects of treatment and the structures of the human frame. It is a fitting and noble adjunct to the college endowed by the father. Three years ago to-day we were assembled to dedicate the new college building, and at that time the worthy son-in-law of the great benefactor made up his mind to establish and endow a maternity hospital. His work is before us. It will be for ages to come, a worthy monument to its founder. His wife, a true daughter of the founder of the college, has furnished and equipped the hospital complete, and has assumed for her lifetime the cost of its maintenance."

The annual "Charity Ball," which was held at the Metropolitan Hospital, on the night of January fifth, was this year a fashionable and brilliant affair, and it is intimated that the net proceeds will be considerably in excess of those of last season's ball, which amounted to about $8,000. This ball, given under the auspices of leading society ladies, has for many years been a source of income to the Nursery and Child's Hospital, a worthy institution for lying-in women and young children, which has a large building in town and a country branch on Staten Island. The annual meeting of the Board of Managers was held on the day of the ball, and the medical report showed that the death rate among the children admitted was 27.87 per cent., against 41.31 per cent. for the year 1886.

Dr. James W. Markoe, a son of Professor Thomas M. Markoe, has been appointed house physician to the Sloane Maternity Hospital.

NEW YORK, January 10, 1888.

PUBLIC HEALTH.

Mortality.—In sixty-eight town districts in the State, representing an aggregate population of 608,800, 1053 deaths occurred during the month of December, representing an annual rate of 20.75. The total mortality from zymotic diseases was 187, giving a rate of 3.68. Of these, 54 occurred from typhoid fever, 6 from typho-malarial fever, 5 from remittent and intermittent fevers, 18 from cerebro-spinal fever, 13 from scarlet fever, 17 from measles, 30 from croup, 29 from diphtheria, 2 from whooping cough, 5 from erysipelas, and 13 from small-pox. The total number of deaths from diseases of the respiratory organs was 320, giving a rate of 6.30. The average annual death rate represented by the deaths recorded for the month, in the ten largest cities and towns in the State, and representing a population of 527,000, was 19.46 per thousand of the population. The lowest rate was recorded in Stockton and Petaluma, each representing a rate of 12 per thousand; and the highest in San Francisco, showing a death rate of 23.28 per thousand.

Small-pox.—Notwithstanding the opinion of the late Dr. Meares, of San Francisco, that small-pox would not become epidemic in that city, because of the thorough vaccination of its inhabitants, the City Board of Health has so declared the disease during the past month; and in the opinion of the writer, there is a sufficient number of persons in every town in the State, and probably in America, who are unprotected by vaccination, to render the disease epidemic, should it ever obtain a foothold amongst them. It is evident that it manifests a tendency to spread at present, for we hear of it in no less than a dozen separate localities. When, therefore, it is an accepted fact the world over that in vaccination and revaccination we possess a preventive which is absolutely safe, and which, if thoroughly applied, would stamp the disease out of existence, it surely becomes the duty of physicians to make it one of the "corner stones" of their daily practice. It is a matter of daily observation that the unprotected only are attacked, or when those even once vaccinated are stricken with the disease, the attack is invariably milder in character, the disfigurement is less marked, and the mortality is reduced in proportion to the efficiency of the vaccination. The question is frequently asked of physicians why they are never attacked with small-pox, and the answer invariably is "we vaccinate ourselves frequently." This is the only known preventive. The late Dr. Terrill, of San Francisco, had never been vaccinated, and he died of small-pox—the only physician, to my knowledge, who died of that disease during the past thirty years. It is hoped that the lesson of his temerity will bring forth good fruit, and that the few others in every community who entertain like views will at once discard them. Having been well aware that it is a loathsome and dangerous disease, and that it affects all races of men, every age, and both sexes, and that the process of vaccination is practically harmless, he is surely criminal who does not accept the benefits thereof. No man was probably more fully aware of the fact that when small-pox attacks unvaccinated persons, it runs its course unmodified in 97.5 per cent. of cases, whereas it is modified in 73 per cent. of those vaccinated even in one place.

Vaccination.—At a recent meeting of the State Board of Health, the writer was reported as having signified his preference for humanized as against bovine virus, and as having expressed his belief that the popular, and even the professional notion, that the former is always dangerous, because of the liability to communicate thereby whatever disease might exist in the person from whom the lymph had been collected, is entirely erroneous and without a shadow of truth. It *is* so maintained; it is also

asserted that there is not a well authenticated case recorded In any country in which syphilis (the disease, above all others, which appears to be most dreaded) has been communicated by means of vaccination; when proper care had been taken in collecting the virus to exclude the blood of the individual. It is also maintained that it is absolutely impossible to transmit constitutional disease by means of vaccine lymph when collected from a typical vesicle, before the lymph contained therein becomes mixed with the products of the inflammation which results from the vaccination—usually at the commencement of the eighth day. When, however, the vaccinator is careless and pricks the vesicle sufficiently deep to draw the smallest amount of blood, the lymph should be invariably discarded, for there is then intermingled with the virus a portion of the fluid which contains the germ of syphilis, or other disease which may be present. *It is not contained in the lymph when collected, as here suggested.* The writer prefers humanized virus, because he believes it less apt to do harm than bovine virus; because it is equally protective in its influence, and because it is very much more likely to take. It should, however, be applied as soon as practicable after its removal from the vesicle, and for this purpose it is believed that the old-fashioned method of arm to arm vaccination is preferable. Vaccinators should also recollect that vaccine protects in proportion to the number of vesicles produced up to at least four insertions, and that when persons are revaccinated in two or more places, they are practically protected against small-pox.

METEOROLOGY.

By J. W. Robertson, B. A., M. D., Assistant Physician to the State Asylum for Insane, Napa, Cal.

Weather.—The month opened with a well-marked storm, central, off the mouth of the Columbia river. This storm was accompanied by high winds and a rain area covering the entire Pacific Coast. This was succeeded by a succession of weak storms, which passed to the east, giving almost constant rain in Oregon and Washington Territory until the 18th, and light rain in Northern California on the 4th, 7th, 8th and 12th. From the 16th to the 23d the weather was fair in all districts. This period of fine weather was broken by a light storm on the 24th, which gave rain as far south as Fresno in California, and by a severe storm on the 27th, which, rapidly spreading to the south, was accompanied by high winds and a copious rainfall, extending from San Diego in the south to Cape Flattery in the north. During the greater portion of the month the weather was warmer than the average December weather, the last ten days, however, being cooler than usual.

Temperature.—The month has been warmer than usual in all the Pacific Coast districts. In California the departures from the normal mean temperature were small, averaging about one degree. In Oregon and Washington Territory they were larger, averaging three degrees for the coast districts, and from five to ten degrees for the interior.

Rainfall.—The rainfall has been in excess of the average December rainfall in Oregon and Washington Territory, and below it in California. The greatest excess is found near Puget Sound, where it amounts to five inches; thence it diminishes in all directions, becoming about two inches in Southern Oregon and a half inch in Eastern Washington Territory. The greatest deficiency occurred in the northern portion of the Sacramento Valley, amounting to over two inches. In the remaining portions of the State the deficiency ranges from one-half to one inch.

California—Tabular Statement for December, 1887.

STATIONS.	Temperature.						Rainfall.		Mean Relative Humidity	Weather.			Wind.	
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No. of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	Furnished by—
Auburn, Cal.	44.8	70	40	.....	.....	.....	.....	4.90	.....	.....	.....	.....	SE.	...Southern Pacific Co.
Colfax, Cal.	58	30	42.4	.....	.....	.....	.....	6.00	.....	.....	.....	.....	S.	...Southern Pacific Co.
Eureka, Cal.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..Signal Service U.S.A.
Fresno, Cal.	62.0	27.1	46.3	.....	.....	20.3	6	1.16	78.2	14	12	5	N.	..Signal Service U.S.A.
Keeler, Cal	42.9	62.8	23.3	52.1	33.6	18.5	4	0.48	45.4	18	10	3	.....	..Signal Service U.S.A.
Los Angeles, Cal.	53.7	73.2	35.2	63.7	42.6	21.1	4	2.68	74.3	21	7	3	NE.	..Signal Service U.S.A.
Monterey, Cal.	53.3	66	37	.....	.....	.....	.....	1.81	.....	.....	.....	.....	SE.	...Southern Pacific Co.
Napa, Cal.	45.2	64.5	31	52.5	38	14.5	10	5.48	.....	14	11	6	S.	....Sta. Napa Ins. Asy.
Red Bluff, Cal.	49.5	67	35	.....	.....	11.6	8	3.22	87.3	11	12	8	SW. W.	...J. B. Trembly, M.D.
Paso Robles, Cal.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Red Bluff, Cal.	48.2	67.7	31.8	55.6	40.2	15.3	11	2.32	67.4	10	10	11	N.	..Signal Service U.S.A.
Sacramento, Cal.	46.9	65.0	29.0	55.6	37.6	18.0	8	2.09	77.6	15	13	3	SE.	..Signal Service U.S.A.
San Diego, Cal	54.6	74.5	35.5	62.2	46.7	15.5	4	1.14	70.7	21	5	5	NE. E.	..Signal Service U.S.A.
San Francisco, Cal.	51.7	69.3	40.4	58.0	46.3	11.6	12	3.34	75.0	12	13	6	N. NW.	..Signal Service U.S.A.
Santa Barbara, Cal.	52.8	74.2	38	63.2	42.1	21.1	4	4.43	.....	26	1	4	W.	..... Hugh D. Vail.
Santa Cruz, Cal.	53.0	72	36	.....	.....	.....	....	1.58	.....	.....	.....	.....	S.	...Southern Pacific Co.
Yuma, A. T.	53.1	72.5	27.1	61.8	41.3	23.5	1	0.15	56.5	27	4	0	.....	..Signal Service U.S.A.

Blank (.....) indicates data missing.

Clear Day—One on which cloudiness is 3 or less on a scale of 10. Fair Day—One on which cloudiness is from 3 to 7. Cloudy Day—One on which cloudiness is over 7.

REVIEWS AND NOTICES.

De l'Électricité comme Agent Thérapeutique en Gynécologie—Electricity as a Therapeutical Agent in Gynecology. By Paul F. Mundé, M. D., Professor of Gynecology at the New York Polyclinic, etc. Translated and annotated by Dr. P. Ménière, Professor of Gynecology, etc., etc,, Paris; Octave Doin, 1887.

Neither the author nor the translator of this monograph needs an introduction to the medical profession, either of the new or of the old world. Their services to suffering humanity are certainly augmented by this work. Dr. Mundé describes his methods of applying electricity in the various neuroses, inflammations and neoplasms of the female sexual organs. In many of these conditions he regards the results of electrical treatment as far more satisfactory than those of the ordinary routine practice. He concludes that localized electrization is a means of great value, and deserves far more extensive use than it now has. A *resumé* of his opinions is presented in other columns of this journal. Dr. Ménière's annotations are chiefly of a practical character, and are of the greater value conveying as they do opinions founded on a large experience.

The Modern Distrust of Insane Asylums. An Address delivered at the Graduating Exercises of the Medical Department of the University of California, November 15th, 1887. By W. H. Mays, M. D., Professor of Mental Diseases, University of California, Superintendent Stockton State Insane Asylum. San Francisco: C. A. Murdock & Co.

The author's familiarity with the practical treatment of the insane has enabled him to write with force and feeling on what he considers a survival of that dread which the fate of the unfortunate insane during the middle ages, and even in the last century, could not fail to inspire. He briefly indicates the part which the profession took in bringing about the radical change in the care of the insane, which occurred at the beginning of the nineteenth century. That every asylum in its inner life is not above comment or reproach, need not be denied; but the author protests against the acceptance and ready credence of defamatory reports in connection with the management of such institutions, and urges their careful consideration. Public officers and public institutions are exposed to the irresponsible assaults of the dissatisfied elements in a community, or to the malice which may prompt a discharged *employé;* but with the insane asylums the evidence of persons still mentally unsound is often taken, regarding events occurring during periods when they were themselves maniacal. Every practising physician can recall familiar instances, and they should not be lost sight of, if the opportunity occurs, to disabuse the popular mind when "another asylum horror" is carefully "written up."

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States, for the fiscal year 1887. Washington: Government Printing Office.

When we consider the enormous amount of work devolving on Dr. John B. Hamilton, as Secretary General of the Ninth International Congress, a labor performed in addition to his official duties, we must admire his capacity for work, well done. The report for the fiscal year ending June 30th, 1887, shows that 45,314 patients were relieved by the service,

being the largest number since its organization. The volume contains, in addition to the usual statistics, a number of selected cases from hospital practice, and reports of fatal cases, with autopsies. In his report are several matters of immediate public interest. Dr. Hamilton states that "the stations at Delaware Breakwater and Cape Charles serve not only as protection to the several large cities and the States in the immediate vicinity, but through them to the country at large, and the recommendation that these stations be thoroughly equipped with all the modern appliances of quarantine is respectfully renewed." Continuing, he says that the several stations on the Atlantic and Gulf coast should be properly equipped and a station established on the Pacific coast in San Francisco Bay. That money expended in sanitation is well spent, is supported by the result of the recent yellow fever epidemic at Key West, Fla. Recognizing the necessity of a quarantine station at or near that town, Dr. Hamilton urged the passage of the necessary enactment by Congress, but, owing to the lateness of the date, no action was taken. He says: "Had this bill become a law, it is strongly probable that the calamitous epidemic might have been prevented. for the first case, with all its belongings, would have been promptly sent to quarantine." Warned by the experience of the Argentine Republic, where, through a suppression of facts and the concealment of sickness, cholera was imported, the necessity for further legislation in connection with the importation of epidemic disease is expressed. Adequate penalties should be provided and rigidly enforced, for this criminal violation of international law.

BOOKS AND PAMPHLETS RECEIVED.

Report of the Surgeon-General of the Army, to the Secretary of War, for the fiscal year ending June 30, 1887. Washington: Government Printing Office.

Report on Progress in Medicine. By J. B. Marvin, M. D., Professor of Theory and Practice of Medicine and Clinical Medicine, in the Kentucky School of Medicine. [Reprinted from the *Southwestern Medical Gazette.*]

Progressive Muscular Atrophy beginning in the Legs. Same author. [Reprinted from the *Practitioner and News.*]

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At the regular meeting of the Board of Examiners, held January 4th, 1888, the following physicians were granted certificates to practise medicine and surgery in the State:

Frank S. Cook, San Francisco; M. Dep. Univ. of Cal., Nov. 15, '87.
William G. Daniel, Colton; Nashville M. Coll., Tenn., Mar. 2, '57.
Wm. A. Davison, San Diego; St. Louis M. Coll., Mo., Mar. 13, '73.
William Dodge, Los Angeles; Coll. of Phys. and Surg., Keokuk, Iowa, June 18, '78.
Frank F. Dole, Los Angeles; Bowdoin Coll., Maine, May 25, '59.
Jefferson Carrosso Fraser, S. Diego; Bellevue Hosp. M. Coll., Mar. 1, '75.
G. W. Fuller, San Francisco; Cooper M. Coll. Cal., Nov. 17, '87.
John Perry Gale, Woodland; Univ. of Pennsylvania, Mar. 7, '87.
Charles G. Garrison, Santa Ana; Univ. of Pennsylvania, Mar. 15, '65.
George I. Glaze, San Francisco; M. Dep. Univ. of Cal., Nov. 15, '87.
William Greig, San Diego; Bellevue Hosp. M. Coll., N. Y., Mar. 10, '81.
William B. Howard, Modesto; M. Dep. Univ. of Cal., Nov. 15, '87.

Robert G. Hulbert, San Diego; Keokuk M. Coll., Iowa, Mar. 2, '80.
George Merrit Illingworth, Los Angeles; Chicago M. Coll., Ill., Mar. 10, '74.
J. Wadsworth Keene, National City; Harvard Univ., Mass., June 26, '78.
Jennie Tower Leonard, Merced; Women's M. Coll. of the N. Y. Infirmary, Mar. 2, '77.
William B. Lindsay, San Francisco; Univ. Victoria Coll., Province of Ontario, May 5, '69.
William H. Miller, Grangeville; Coll. Phys. and Surg., Chicago, Ill., Feb. 23, '86.
Melvin L. Moore, Los Angeles; Rush M. Coll., Ill., Feb. 24, '80, and Bellevue Hosp. M. Coll., N. Y., Mar. 15, '82.
J. M. Mosenn, San Jose; Coll. Phys. and Surg., Iowa, June 18, '78.
Heber Robarts, Santa Barbara; Missouri M. Coll., Mo., Mar. 4, '80.
Vernon D. Rood, San Diego.
Christopher A. Sanborn, Redland Lugonia, P. O.; Bellevue Hosp. M. Coll., N. Y., Mar. 15, '82.
Ida May Stites, San Francisco; Cooper M. Coll. Cal., Nov. 17, '87.
Chas. Teubner, San Diego; Univ. M. Coll., N. Y., Mar. 6, '85.
T. J. Townsend, San Diego; Univ. M. Coll., N. Y., Mar. 5, '69.
Christopher C. Webb, Elsinor; M. Dep. Univ. of Maryland, Mar. 3, '81.
William H. Ziegler, Oakland; Jefferson M. Coll., Penn., Mar. 13, '80.

WM. M. LAWLOR, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from Dec. 20th, 1887 to Jan. 20th, 1888.

Assistant Surgeon Eugene L. Swift, ordered for duty at Fort Spokane, W. T. S. O. 293. A. G. O. Dec. 17, 1887.

Assistant Surgeon Wm. B. Bannister, ordered to proceed to Fort Lowell, A. T., and report to commanding officer for duty, upon the arrival of Surgeon P. J. A. Cleary at Fort Wingate, N. M. S. O. 135, Dept. Arizona, Dec. 20, 1887.

Major David L. Huntington, Surgeon, will return to his station, San Diego Barracks, Cal. S. O. 84, Div. Pacific, Dec. 24, 1887.

Leave of absence for one month is granted Surgeon P. J. A. Cleary. S. O. 138, Dept. Arizona, Dec. 25, 1887.

Assistant Surgeon Wm. B. Bannister, ordered from Fort Lowell, A. T., to Fort Wingate, N. M. S. O. 3. A. G. O. Jan. 5, 1888.

Captain John J. Cochran, Assistant Surgeon, will proceed to San Rafael, Cal., on public business; on the completion of which, he will return to these Headquarters. S. O. 3, Dept. California, Jan. 17, 1888.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (District of the Pacific), from December 20th, 1887, to January 20th, 1888.

Assistant Surgeon P. M. Carrington, ordered to examination for promotion.

Passed Assistant Surgeon S. C. Devan, relieved from duty at Port Townsend, W. T., to assume charge of Sapelo Quarantine.

Passed Assistant Surgeon H. A. Glennan, relieved from duty at Key West, Fla., to assume charge of the Service at Port Townsend, W. T.

THE MEDICAL TIMES will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers; of course not necessarily for publication.

All communications relating to this journal should be addressed to 429½ J street, Sacramento, Cal.

Sacramento Medical Times.

VOL. II. MARCH, 1888. No. 3.

A CLINICAL LECTURE,

Delivered at the Hospital of the University of Pennsylvania,

By WILLIAM PEPPER, M.D., LL.D.,

Provost of and Professor of Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania.

Neuralgic Headache Possibly Due to Eye-strain.

Gentlemen: The first case that I bring before you to-day is this young man, who presents conditions referable to the nervous system. He is in fair general health, has lived a correct life, and has no hereditary tendency to disease. He is a typesetter by occupation, but has not been exposed to the action of lead in any other way than by the handling of types—which is a very improbable source of lead-poisoning. He is a married man, and has healthy children. Five years ago he began to have what he sometimes speaks of as a fullness of his brain, and sometimes of as a pain in the head. Close inquiry shows that he has a constant disagreeable, unnatural feeling about the head, and that at times he has severe spells of headache. These attacks recur every few weeks. Between the paroxysms of headache, he has a constant feeling of fullness in the head. There is also a heavy, dull feeling in the top of the head; this is worse in the day time, but it does not disappear with sleep. As you will note, the speech is a little slow and hesitating, but this is said to be a natural peculiarity.

In searching for a cause for these symptoms, we first consider the possibility of lead-poisoning, since the toxic action of lead sometimes induces severe neuralgia, often in the form of headache, or in the form of neuralgia of some of the cranial nerves. The patient has, however, never had any symptoms other than the headache which would arouse the faintest suspicion of the existence of lead-poisoning. There have been no attacks of lead colic, no palsy, no blue line on the gums, no obstinate constipation—nothing, in fact, to indicate any connection with lead; nor is his occu-

pation one to justify us in supposing that he could be poisoned with lead from that source.

Again, we have examined the urine and found it to be normal. The heart is healthy. There appears to be no organic disease and no functional disturbance. We learn that the present symptoms appeared shortly after he began his present business as a compositor—a work which, as you know, taxes the eyes severely. The picking up of the small types, getting the exact ones, and doing this with rapidity, taxes the sight; and the danger of eye-strain is increased by the fact that this is often done with an imperfect light. When you meet with a case of headache, or distressing sensations about the head, and are searching for a cause to explain them, and have eliminated one after another such possible causes as syphilitic poison, which is a frequent cause of persistent headache; the operation of some toxic or poisonous influence, such as some of the metallic poisons and the malarial poison, both of which are fruitful causes of persistent neuralgia; albuminuria from renal diseases, which is frequently associated with neuralgia. When we have eliminated all these, and when we find that the neuralgia is not merely an occasional occurrence in a person who has become run down, anemic and sensitive, so that from slight exposures and indiscretions attacks of neuralgia are provoked, it is always well to consider the possibility of the headache, or of the distress in the head, being due to eye-strain. The over-use of ill-accommodating or astigmatic eyes is often a cause of just such symptoms as this patient has presented. You are all familiar with that sense of strain which comes from taxing the eyes, even though vision is perfect. Those of you who have defects of accommodation will remember the marked discomfort caused by the attempt to use the eyes for any length of time without their glasses. The use of the eyes where the accommodation is defective, particularly at work requiring minute attention, is almost certain to be productive of symptoms referable to the head. These often take the form of dull, heavy feelings about the head. At times there may be vertigo, and almost always there will be from time to time neuralgic pains, and these may be persistent. These pains will not necessarily be in the eyes. Quite frequently they are in the temples, or they may be in the vertex, or in the occiput. There may be nothing in the character of the pain to direct attention to the eyes as its cause. While it is true that eye-strain as a cause of these pains is often overlooked, it is also true on the other hand that we are in danger of going to the other extreme of referring too many cases of dis-

tressing sensations about the head to eye-strain. Many persons have some defect of accommodation, and it is therefore only by a careful elimination of the other causes that we are able to decide upon the error in accommodation as an important factor in the production of the symptoms.

In the present case we have not yet had an opportunity to make a careful study of the eyes, and we are therefore not prepared to make a positive diagnosis at this time. So far as our examination goes, it would seem to indicate that the head symptoms are due to eye-strain. We must, however, continue our consideration of the case until we have had a careful examination made with reference to the condition of the eyes, and we shall refer the patient to the eye department in order that this may be done. If no trouble with the eyes is found, we shall be much puzzled to explain this case. If an error of accommodation is found, the treatment is at once evident, for nothing but the use of proper glasses will afford relief, while the proper adjustment of glasses to the existing defect will often relieve the pains as if by magic.

Catarrhal Pneumonia with signs simulating those of a Cavity – The Treatment of Circumscribed Lesions of the Lungs by Local Measures.

Our next patient is a man who was admitted to the hospital two weeks ago, with the following history: The cause of his father's death is unknown. His mother died of some acute affection. He has three brothers living and in good health. He does not remember being sick during childhood. When 17 years of age, he had intermittent fever. He has been much exposed nearly all his life as a driver in the Fire Department and later as a cab driver. In 1860, he had two ribs broken, and there are distinct evidences of fracture on the right side. While in the Fire Department he had small-pox, typhoid fever and, in 1874, rheumatism. In 1876, he had pneumonia. Since then he has felt weaker, but his general health has been good. No venereal history can be elicited. The glans penis shows scars which he attributes to small-pox. They show loss of tissue rather than cicatrices. There is a large scar over the lower third of the right tibia, the result of a compound fracture of both bones of the leg. In 1876, his weight was 165 pounds, and this was his average weight up to a few weeks ago.

The present illness began about one month ago, with feverishness, sweats, diarrhea and a dry, straining cough. With this, there was a rapid loss of flesh and on admission his weight was found to be 140 pounds, a loss of twenty-five pounds in about two weeks.

Examination of the lungs at the time of admission showed that the expansion of the right chest was deficient, and that there was flattening in the right subclavicular region. The supraclavicular fossæ were very deep on both sides, especially so on the right side. There was increased fremitus on the right side and this was marked over the area covered by the third and fourth ribs, that is, over the lower portion of the right upper lobe. There was dullness over the upper portion of the right chest, shading off as we passed into the axillary region. Posteriorly there was dullness on percussion in the right supraspinous fossa. Over the right base the percussion note was somewhat duller than over the left.

On auscultation the respiratory murmur over the apex was good with slightly prolonged expiration. On the right side the respiration was harsh and bronchial. In the right supraspinous fossa, the respiration was harsh with prolonged expiration. Over the upper portion of the right lung in front and as low down as the upper border of the fourth rib there was pectoriloquy. This was quite marked. The heart was found to be normal, the liver much enlarged and the urine normal.

We find here the evidences of decided lesions of the lung coming on acutely. We learn on inquiry that there was very little fever. Very little expectoration accompanied the attack. It would naturally be inferred from the history which has been given that this man was not in a good condition to withstand any acute disease. It is, therefore, not surprising that he should have gone down so rapidly from what seems to have been an attack of catarrhal pneumonia beginning one month ago. The man was taken with creeps and a chill; had night sweats, a dry cough and lost flesh rapidly; became thin and weak; and when we come to examine him, we find scattered areas of infiltration throughout the lung and most marked at the right apex in front, at the base of the right lung posteriorly, where there is some dullness on percussion, with a few mucous rales.

We should have been disposed to regard the case as one of catarrhal pneumonia, not resolving properly, but tending to pass into a subacute stage, if it had not been that at the right apex the physical signs were so serious in their import. These signs still remain, that is to say there was impaired resonance; not a flat sound, but one having a hard hollow character, as though there were deep-seated cavities with thickened tissues between, imparting to the percussion note a hard quality. There was then deep-seated tympany on percussion. There was on auscultation pro-

longed blowing expiration amounting almost to cavernous respiration. There was pectoriloquy for spoken and whispered voice, and there were a few coarse moist rales. In addition, similar signs were found in the supraspinous fossa behind.

On examination to-day, I find the left lung normal. Over the right apex the resonance is impaired. From the upper margin of the third rib to the upper margin of the fourth rib is a narrow band where the dullness on percussion is more marked. Below this line the percussion note in front is normal. On auscultation over the upper lobe in front, I find blowing expiration and inspiration. Very few rales are heard. There is strongly marked bronchophony, but the pectoriloquy is not so distinct as it was one week ago. I find that in the right supraspinous fossa, the signs have been modified more materially than they have been in front. The breathing is less blowing and the expiration is not so prolonged.

The present examination shows that it probably would have been an error to have concluded last week that there was a positive cavity present. The infiltration surrounding the right main bronchial tube was such that it closely simulated a cavity with thick walls, and it closely simulates it to-day; yet I cannot but think that this is only a simulation and that an actual cavity has not occurred. I think that there is a large and very straight primary bronchus, and that the infiltration of the tissue surrounding this tube has allowed the breath sounds, the voice sounds and the percussion sounds to come to our ear so clearly as to tempt us to think that a cavity existed.

Last week, this man was going down hill very rapidly; he was losing strength and the disease at the right apex was progressing. I therefore determined to inject into the lung tissue a few drops of some antiseptic liquid, and for this purpose I selected a 1:1000 solution of the bichloride of mercury, of which I injected six minims. This I shall repeat to-day. During the past week, the man has evidently been improving, but the injection may have had nothing to do with this. He became so much better, that two days ago he insisted upon leaving the hospital and he comes back to-day stating that he feels even better than when he left.

The course of the case tends to confirm the view that this is a case of catarrhal pneumonia, not undergoing resolution properly. We shall continue the treatment by injection. I select for the entrance of the needle, a point in the second interspace where the signs are most marked. The man is directed to take a long breath and hold it, and I then introduce the needle until it has entered

the lung tissue and throw in the liquid. The sputa in this case have been examined for bacilli with negative results. From this fact and from the history, and still more from the improvement that has occurred, we have every reason to believe that this is not a tubercular process, but a pneumonic process, not resolving, but tending to run into abscess. I have a great deal of faith in the local treatment of circumscribed lesions of the lung of a certain kind, which I shall define on some other occasion, and I think that this method of treatment is thoroughly admissible in the present case. It is also to be remembered that examination of this patient shows the existence of enlargement of the liver, and the nature of this enlargement will require careful consideration on a future occasion. It was with the hope of favorably modifying the process which is going on in a circumscribed portion of the lung, tending to the production of a focus of softening with subsequent involvement of the remaining portions of the lungs, and of the general system that some years ago I introduced the method of local treatment of these circumscribed lesions, which is now becoming more widely used, although as we should expect from the grave character of the disease, the treatment is far from being attended with the success that we might wish. This method of treatment is totally inapplicable to cases where a large extent of lung tissue is involved, but where there is a strictly circumscribed focus of disease, it is in the highest degree important that if there be any local measure which will favorably influence the process, it should employed.

A CLINICAL LECTURE,

Delivered at the City and County Hospital, San Francisco,

By J. O. HIRSCHFELDER, M. D.,
Professor of Clinical Medicine in the Cooper Medical College.
(REPORTED BY H. BRODEK.)

Purpura Hemorrhagica.

Gentlemen: The patient whom I now present to you attributes his present affection to "catching cold." This was followed by expectoration and loss of weight. About a week ago pains set in in all the joints, which continued for two or three days, when an eruption appeared. With the occurrence of this eruption the pains disappeared for a day; reappearing, however, in the right knee. At present the urine is clear, but dark, and contains no albumin.

On examination, the lower extremities show extravasations of blood, occurring in spots, varying in form and size from those

smaller than the head of a pin to large confluent ecchymoses. This eruption extends over the lower extremities to the thighs, none appearing upon the abdomen. A few may be seen upon the back, and quite a number upon the arms and wrists—being more numerous upon the extensor than upon the flexor aspect. These spots, or capillary hemorrhages, do not disappear on pressure. They may be produced by a variety of causes, but the two diseases to which they are more particularly attributable are scorbutus and purpura hemorrhagica.

The case now before us is one of purpura hemorrhagica. It is a disease of whose etiology we know positively nothing. It affects individuals in perfect health as well as those who have become enfeebled through some long-continued, wasting disease. During the period of convalescence from tedious illness, it is also apt to show itself. It cannot be traced to any error in diet, as is the case in scurvy, which is produced by long-continued abstinence from vegetables, especially fresh vegetables, and occurs almost exclusively on shipboard, although at times it is observed on land. I distinctly remember having had under my observation a Frenchman, whose diet for a number of months consisted solely of bread and a little wine; in this case scurvy was developed. Purpura hemorrhagica is a disease which is apt to set in without any prodromata. At times, when in perfect health, the patient exhibits an eruption, as in this case, first bright red, then becoming darker, and finally yellow; in fact, passing through the various stages of hemorrhagic effusion. The eruption may disappear and reappear two or three times during the course of the disease. In some cases we have pains in the joints preceding the eruption, and disappearing when the latter has fully developed. In other cases severe gastro-enteric symptoms, such as vomiting and diarrhea, are apt to appear. Hemorrhages may occur from the various mucous surfaces of the body.

We have several means of differentiating this disease from scorbutus; the latter occurs epidemically and endemically, the former is sporadic. The previous history of privation and the inflammation of the gums point to scurvy. These are bluish-red, or purple, in appearance, swollen and spongy, and bleed easily if touched. In scurvy we also find small spots resembling those here present, but they are more apt to be larger and ecchymotic. There is none of the painful joint affection, as in this case. These are the more prominent symptoms. As a rule the prognosis is favorable, although frequent relapses may complicate the case.

Various fine-spun theories regarding the etiology of purpura have been proposed, but they rest upon no secure foundation. The theory which is most generally accepted refers it to some alteration of the blood vessels—alterations which cannot be determined by the microscope, but are only manifested by their effects. These changes in the blood vessels are characterized by a tendency to rupture, with consequent effusion of blood. It is true that something can be said in favor of this hypothesis, namely: that the disease is frequently observed during convalescence, when the patient at first unduly exercises, producing a sudden increase in the blood pressure. It is supposed, under these circumstances, that the blood has regained its normal condition more rapidly than the blood vessels. In long-continued disease we have a depraved condition of the entire system, and the nutrition of the blood vessels suffers more than that of the blood, for their nutrition is more complicated; and we can readily understand how the slightest exercise might produce a rupture of the unregenerated vessels. If we make an examination of the blood, nothing abnormal is observed. This patient is also affected with phthisis. I cannot tell whether or not there be any relation between this and the purpura, for it occurs as well in healthy as in enfeebled subjects. All sorts of remedies have been advised. Iron is to be avoided during the attack, as when given at this period it is apt to increase the eruption; when this has passed away, it is entirely proper to administer ferruginous preparations. Good nourishing diet and rest in bed are the important elements in the treatment of this disease.

A CASE OF VESICO-RECTAL FISTULA, CURED WITHOUT OPERATION.

By G. L. Simmons, M. D., Sacramento, Cal.

Vesico-rectal fistula is an affection of comparatively rare occurrence, and its treatment, as recommended in works upon surgery, is often so unsatisfactory, that, in some cases, all efforts to effect a radical cure, with or without the knife, have been abandoned as useless. This is particularly the case where there is an interchange of the contents of the bladder and rectum, giving rise to constant retention of urine, with other distressing symptoms.

In September, 1887, a gentleman, 23 years of age, placed himself under my care, with the following clinical history: During the previous May he had contracted a gonorrhea, which, as he supposed, readily yielded to one of the patent cures now in the mar-

ket. Six days after the discharge had ceased, or about June 21st, he noticed a thickening about the anterior anal region, which gradually increased, and was accompanied by intense irritation and pain through the wall of the bladder until the 23d, when he suffered from complete retention of urine. For 36 hours he was unable to empty his bladder; and, finally, the services of a physician were secured. Under the use of catheters, anodyne suppositories, and other agents, the acute symptoms subsided, the fever moderated, and the frequent chilly sensations, which had been present for about a fortnight, ceased; almost complete relief being afforded, on the 6th of July, by the discharge from the rectum of a coffee cup full of pus and blood.

From this time until the date of my call, he had been under the care of several excellent practitioners, all of whom had given him the best attention, with such remedies as are usually recommended in these cases: but large quantities of pus had continued to come from the rectum, with an occasional dirty discharge from the urethra, and the adjacent parts were so irritable that his naturally good spirits and constitution appeared to be giving way under the constant drain and vesical irritation.

A careful examination with the anal speculum, showed a well-marked fistulous opening upon the anterior wall of the rectum, just above the isthmus of the prostatic lobes, from which issued pus and urine. The bladder, over its anterior wall, was very sensitive, and the contents had an alkaline reaction, with heavy sediment of dirty mucous and pus, having a fecal odor. There was an almost constant discharge from the urethra, of a muco-purulent character, with flatus, and a frequent oozing of urine through the anus, which gave rise to excoriations of a very annoying character. His appetite was poor, complexion sallow, and general appearance that of a confirmed invalid.

The preliminary treatment was commenced by a thorough irrigation of the bladder with water, through a double current catheter and the subsequent introduction of a solution of nitrate of silver (gr. 1 to ℥i). This was immediately followed by an injection of a solution of biborate of soda (gr. 10 to ℥i), to which one grain of cocaine had been added. Tincture of iron and quinine were given internally, a strict diet enforced, and frequent cleansings of the rectum insisted upon. Nearly every day the bladder was irrigated, and the relief of many of the most distressing symptoms was apparent in about ten days. It was then resolved to make an attempt to close the fistula without an operation by the knife, and

for this purpose the patient was placed in bed for a week's stay. After a free purgation and a cleansing of the bladder in the manner stated, a catheter was introduced and tied in position. Through an anal speculum a few drops of carbolic acid were introduced into the fistulous opening in the rectum, by means of a soft, silver canula, attached to an hypodermic syringe. The whole rectum was then closely packed with absorbent cotton, on which had been freely dusted iodoform, and a strong **T** bandage applied, with a good deal of pressure on the perineum. Very little food or drink was allowed, and a full dose of opium administered.

For seven days, by close fasting, but little urine accumulated, and this freely flowed away. The urine, under mild alkalies, became clear, and at the end of the week a rectal examination showed an entire change in all the local symptoms and an evident closure of the fistulous orifice. The packings with iodoform cotton were, however, continued, and an occasional irrigation of the bladder insisted upon for several weeks after the cauterization, by carbolic acid, of the fistula.

Convalescence continued without interruption, and the patient resumed his post with the railroad company in a few weeks. Three months afterwards he called upon me in apparent perfect health, and without a trace of bladder or rectal trouble.

212 J street.

HYDROPHOBIA.

By H. VOELLER, M. D., Sacramento, Cal.

(*Concluded.*)

Treatment.—The curative treatment of hydrophobia has yet to be discovered. There is not one case of recovery upon record, after that frightful disease has once declared itself, that can stand the test of scientific scrutiny. The prophylactic treatment, however, deserves our closest consideration. Although it has not been shown with any certainty that the poison remains at the place where it was first deposited until the phenomena of recrudescence ensue, yet there is some evidence in favor of this supposition. The early and complete excision of the bitten part, after the wound has been thoroughly washed, sucked or cupped, and finally the application of the actual cautery, are the only means in which we can put any confidence. Youatt, as already mentioned, trusted to caustics, and he and Blane believe that there is no remedy which so certainly neutralizes this poison as nitrate of silver; the former regarding it as a specific. He cleanses the parts with soap and

water, and then uses the caustic most thoroughly, previously enlarging the wound if necessary. Notwithstanding the opinion of this eminent veterinary surgeon, we should trust to nothing but the knife and actual cautery; no other is efficient. If the bite is by situation or extent of such a nature that the whole wound can not be excised, we should not hesitate to sacrifice a finger, the nose, an ear, or even to amputate a limb above the seat of the injury; for almost any local sacrifice is justifiable to secure immunity from so horrible a disease.

Though early excision and cauterization is the only sure preventive, it will be advisable in all suspicious cases (if for any reason the operation has been at first omitted) to excise the wound or cicatrix within the first two months, or at any time before the symptoms of recrudescence have appeared; and even at that period the moment any new sensation manifests itself at the seat of injury. Mayo, on the same grounds, advocates the removal of the cicatrix, though symptoms of hydrophobia have appeared. Even if there were no hope of preventing the occurrence of the disease by this procedure, it should be practised, if for no other reason than the soothing effect exercised upon the mind of the sufferer.

It may be of interest to mention a method of treatment which was widely noticed about 30 years ago. Marochetti, a Russian physician, asserted that between the third and ninth day, in a person who had been bitten by a rabid animal, pustules appeared in the neighborhood of the frenum linguæ, containing fluid of a yellow or greenish color; these disappeared in 24 hours. He held that the poison was for a short time deposited there, and then reabsorbed into the system, and further asserted that if these pustules were evacuated and cauterized with the actual cautery, we could infallibly prevent the development of the disease. There is hardly an article of the materia medica that has not been fairly tried, but without influence on the disease or its course.

The recent researches of M. Pasteur seem to show that the diluted poison of hydrophobia injected into the blood of animals protects them from infection, prevents the development of the disease after the animal has been bitten, or mitigates the severity of the symptoms when the disease has manifested itself. Pasteur has demonstrated that the virus is contained in the cerebrum and spinal cord, and in the whole nervous system, as well as in the salivary glands. He transmitted the virus from a dog to a monkey, and then through a succession of monkeys, and found that it became so attenuated that when injected beneath the dura mater it remained quite inert,

but rendered the animal insusceptible to rabies. On transmitting the virus from a dog through a succession of rabbits or Guinea pigs, the virus was intensified. The virus derived from the successive inoculation of rabbits attained such a degree of virulence that when reinoculated upon the dog it was more active than the virus of street rabies. He injected portions of the spinal cord of a dog which died of rabies beneath the dura mater of a rabbit, and produced rabies after a period of incubation of fourteen days. When the virus was transmitted from one rabbit to another, the period of incubation was decreased and the intensity of the virus increased. On being transmitted twenty to twenty-five times, through a succession of rabbits, the period of incubation was reduced to eight days; and by further transmissions, through an equal number of animals, to seven days. After this the incubation period remained constant. The virus can be obtained from the entire spinal cord of the rabbit; it appears earlier in the cervical than in the dorsal, and still later in the lumbar region. Upon these experiments Pasteur based his method of prophylactic inoculation, or vaccination as he sometimes calls it. Portions of cords, dried in a thoroughly dry and pure atmosphere, gradually lose their virulence; the intensity of the virus is not diminished, but the quantity is lessened. By drying cords for different periods of time, he prepared a virus of different strength, and using, for successive injections, cords dried during gradually shorter periods, he gradually increased the strength of his injections. By crushing portions of these cords in sterilized broth, he obtained an emulsion for injection. Pasteur prepared to inoculate a dog on the first day with a cord, the virulence of which had been destroyed by drying for 14 days, using, on each successive day, a cord dried one day less than on the previous day, the last inoculation being made with a cord dried for one day only; thus the inoculations are not made with a gradually stronger virus, the virus remaining the same, but the quantity being greater.

Pasteur also proposed a second or intensive method of inoculation, which he has used in urgent cases. The injections of gradually increasing strength, are made three times on each of the first three days, then once a week, and then in different degrees of frequency for some days more. Whether the virus had been injected beneath the skin or the dura mater, the dog became insusceptible to rabies. After this state of immunity had been reached, the strongest virus could be injected without any risk. Nay, Pasteur believes that the immunity would be more confirmed, and that a

final injection, with very strong virus, has the advantage of limiting the period of apprehension of the sequel of a bite; for if the disease broke out, it would appear earlier than from direct inoculation on account of its greater intensity.

Having thus successfully inoculated fifty dogs, varying in race and age, the opportunity was presented of trying his inoculations on man. The patient, a boy of nine years, was severely bitten by a dog, proved by *post-mortem* examination to have been rabid. The first injection was made 60 hours after the bite (July 6, 1885), with the fluid from a cord dried during 16 days. Two injections were made daily till July 9th, then one only; on July 16th the fluid from a cord dried for one day was injected. Control experiments made on rabbits by trephining, showed that the cords dried for more than seven days were not virulent; the fresher ones showed a gradually increasing virulence. The patient was unaffected.

Jules Guérin objects, that it has not been ascertained that rabies produced in the rabbit by inoculation is identical with genuine hydrophobia. Lorinzer says that the complex symptoms described by veterinary surgeons as rabies may depend on entirely different maladies, the great variety of the appearances met with at autopsies supporting this, and that those pathological processes do not produce a specific contagium. This contagium is produced, according to Pillwax, only by that form of rabies which appears as a typhoid process, or splenic fever. Galtier was satisfied by experiments that the virus is obtainable from the froth of the saliva only. Injections with the secretion of the parotid and submaxillary glands, emulsions of pancreas and of muscle-serum, the stomach contents, and with fluid obtained from the cerebrum were innocuous. Galtier cultivated the froth of the saliva of a rabid dog in normal saliva; Guinea pigs inoculated with it died after 4 to 12 days, yet inoculation of young dogs with the saliva of those animals only produced septicemia. Lorinzer, therefore, believes that septicemia produced by the injection of putrid matter, may have played some part in Pasteur's experiments. These experiments and conclusions are by no means free of doubt, still less the successes claimed in the preventive inoculation of man, for it is not certain in many cases, that the dog was really rabid; also, a proportion only of persons bitten by mad dogs become rabid, and some so long after the bite, that more time is necessary to enable us to estimate the true value of this method. It is hard to understand how, by successive trans-

missions of an increasing quantity of virus, the attenuation of the previously inoculated poison can be produced.

If Pasteur believes, in accordance with his theory, that the spinal cords of animals that have died of rabies, contain both the virus and its antidote, and that by injections of emulsions of such cords in animals bitten or inoculated, the antidote may be able, during the period of incubation, to arrest the fatal influence of the virus. If he further holds that the drying process reduces the efficiency of the antidote to a much less extent than the potency of the virus, then the proportion of the antidote to the virus would be greater in the cord first employed than in the second, as it had been dried during a longer period of time, and in the second greater than in the third, and so on. He would thus, by successive inoculations, gradually inject more virus than antidote.

Regarding the number of persons bitten who suddenly appeared, Pasteur's explanation is, that formerly silence was maintained as to the true nature of wounds caused by the bites of rabid animals. He has endeavored in every case to ascertain whether the animal was really rabid, but there were always some amongst those inoculated, who were bitten by dogs only suspected of rabies. In 25 out of the first 100 persons inoculated, from Nov. 1st to Dec. 15th, 1885, the inoculations were carried out in ten days. In the majority of these cases the bites had been cauterized; in the others, no treatment had been adopted before the preventive inoculation. On the 25th of February, 1886, Dr. Grancher inoculated the 350th patient in Pasteur's laboratory. No bad local symptoms were noticed in any of these cases. Of these 350 persons bitten, one only, a girl of 10 years, died; she was severely bitten on the shoulder and head, and applied for treatment 37 days after the infliction of the injury; 55 days after the bite and 11 days after the preventive inoculations were completed, the premonitory symptoms of hydrophobia appeared; four days later the disease declared itself, and in two days the child died. The question, whether death was due to the virus of the rabid dog or to that of the inoculations, was raised. To settle this, Pasteur injected a portion of the cerebrum of the child beneath the dura mater of two rabbits. Both were attacked with paralytic rabies; 18 days after the inoculation other rabbits were inoculated from the cords of these rabbits, and 14 days later the disease manifested itself. Hence, Pasteur concludes that the death of the girl was caused by the virus of the dog and not by the inoculations; otherwise the disease would have manifested itself at least on the seventh day.

The statistics of Dr. Leblanc, of the Department of the Seine, from 1878 to 1883, show that on an average one out of six persons bitten by rabid dogs died, the period of incubation being 40 to 60 days. Pasteur claims that his vaccinations should, in most cases, be considered as successful: eight months having elapsed in one case, four and a half in another; in 100 cases, two and a half months, and in another 100 cases, from two months to six weeks.

Uffelmann says that it is yet too early to estimate the practical value of this method. Still, he admits that Pasteur's discoveries have one great value, which will remain: "He has succeeded in preparing the virus of rabies of extreme purity, in concentrating the original virus, attenuating it, if necessary, and keeping it of equal strength. He has further succeeded in making animals perfectly safe from the bite of a rabid dog, as well as from artificial inoculation of a virus of the highest virulence by the injection of a virus of gradually increasing virulence."

According to the report of the British Commission, "Pasteur's method may justly be deemed the first proved method of overtaking and suppressing by inoculation a process of specific infection." Pasteur states that the number of persons inoculated up to May 4, 1886, was 950, with seven deaths; the girl before mentioned, five Russians, bitten by wolves, and a woman of 60 years, who was treated 14 days after being bitten. The bite of a rabid wolf is more dangerous, as the wounds are usually on an exposed part and deeply lacerated. The mortality is almost 100 per cent., the period of incubation being 13 to 15 days. In December, 1886, the whole number of persons inoculated amounted to 2682, and the number of deaths, as stated by M. Vulpian, to 31, including seven bitten by wolves, in three of whom the symptoms of hydrophobia appeared before the series of inoculations were completed. Since that time three more of those inoculated in that year have died of hydrophobia. The British Commission says: "Making fair allowance for uncertainties and for questions which cannot now be settled, we believe it sure that, excluding the deaths after bites by rabid wolves, the proportion of deaths in the 2634 persons bitten by rabid animals was between 1 and 1.2 per cent., a proportion far lower than the lowest estimated among those not submitted to M. Pasteur's treatment, and showing, even on the lowest estimate of 5 per cent., the saving of not less than 100 lives."

Prof. A. Högyes, on investigating the specific contagium of rabies showed that the medulla oblongata of a man dying of hydrophobia, contains a virus, which, reinoculated upon animals, produces rabies.

The same regularity was observed in his inoculations from animal to animal, as if the virus had been transmitted directly from a rabid street dog, which proves undoubtedly the identity of the disease and of its contagium. The virus of rabies transmitted from warm-blooded to cold-blooded animals, produces the same disease in the latter.

The experiments which Pasteur made, previous to the application of his method on man, are not entirely free from doubt, because the test dogs bitten by a rabid dog may not have been infected at all. Prof. von Frisch, therefore, has chosen for his experiments the safer way of investigating the matter—that of trephining. He made two series of experiments. 16 rabbits were inoculated by trephining with a portion of the cervical part of the spinal cord. The virus was obtained originally from a rabid street dog; it was inoculated successively through three generations of rabbits, and showed, after the last transmission, an incubation period of 16 days. The preventive inoculations were commenced with a cord dried during 15 days, taken from a rabbit inoculated with a virus of seven days' incubation period. On each successive day, the cord used was dried one day less than on the previous day, the last cord one day only. The preventive inoculation of the first animal was performed one day after the infection, the second one two days, the third one three days, and so on, in order to ascertain the number of days before the onset of the disease, that the influence of the preventive injection may be observed. As a control experiment one rabbit was left without protection. This one fell sick on the eighteenth day after trephining and died three days later. All the other rabbits took sick and died between the fourteenth and thirty-third days after the preventive inoculation.

In the second series, performed in the same way, the injections were made more rapidly increasing in strength, in which case the animal should sooner become able to resist the most intense virus. All the animals died except one, which, from the fifth day after trephining, had been inoculated ten times with cords dried from 1 to 13 days. The reason why this animal did not die is not given; but if we remember the effect of the virus on all the others, we might suppose that it did not take on that one. Injections with cervical cords of the test animals showed, on *post-mortem* examination, that death was certainly caused by hydrophobia. It occurred between the thirteenth and eighteenth day after trephining, the period of incubation being on an average four to five days shorter than usual. Five trials were made with dogs. The virus

was taken from a rabid street dog and transmitted through four generations of rabbits, the incubation period, after the last transmission, being 14 days. The preventive inoculation of three dogs was commenced 24 hours after trephining. Two dogs served as test animals. Both of these unprotected dogs fell sick on the twelfth and thirteenth days after trephining; one of them died 36 hours later, and the other one was killed 48 hours after, being furiously rabid. The first of the three protected dogs fell sick on the thirteenth day and died 36 hours later; the second got sick on the fifteenth day and died three days later; both were seized with furious rabies. The third dog, 23 days after trephining, was still well. Six rabbits were inoculated with the same virus; three of them were protected, three unprotected. Four weeks after trephining all the animals were still well. Von Frisch, therefore, came to the conclusion that Pasteur's protective inoculation can, neither in rabbits nor in dogs, prevent the appearance of rabies after infection has taken place, if an infectious virus of an incubation period of at least 14 days has been injected by trephining.

Regarding the question of establishing Pasteur Institutes, Prof. Bollinger, of Munich, refers to the present status of governmental prophylaxis, especially in Bavaria. The destruction of ownerless dogs and the introduction of the dog tax, have diminished the number of dogs by one-third, and in a much larger proportion the number of cases of real and suspected rabies. This has naturally resulted in a proportionate diminution of hydrophobia in man. In 1876 (the date of the introduction of the tax), 13 cases were observed; the number was, in the following two years, reduced to eight and five. During the years 1879, '80 and '82, but one case occurred each year, and during the years 1881, '83 and '84, no case was reported. Under these circumstances there is no necessity for preventive inoculation.

In reply to an interrogation of Virchow in the Prussian Chambers, the chief of the department for sanitary affairs said that, in regard to Pasteur's method, the conclusive deductions of Bavaria had the same value for Prussia, and probably for all Germany. Hydrophobia must be considered as almost extinguished in Wurtembergh, says Dr. Rembold; but this temporarily favorable condition cannot be considered as a safeguard against a reappearance of the disease. The rigid enforcement of police regulations and the higher taxation has undoubtedly very considerable influence; but the statistics of Wurtembergh show that before the introduction of the law the pestilence was already decreasing, and a comparison

with Bavaria shows that this decrease commenced almost at the same time, and in the same proportion, in that country before any measure had been adopted. According to Berger, of Leipzig, this would infer a natural appearance and disappearance of the disease, such as we notice in other infectious diseases of man and animals.

Although estimating most highly the value of Pasteur's investigations and discoveries; which have added very largely to our knowledge of hydrophobia and its pathology, it seems to the writer that the early excision and cauterization of the bitten parts deserves more confidence for the prevention of this disease, and that Pasteur's method should be reserved only for those cases where the complete extirpation of the wound either cannot be effectually performed, or only by crippling or disfiguring a person to such an extent that life would be miserable.

1020 Sixth street.

A CASE OF LEPROSY.

By DAVID POWELL, M. D., Marysville, Cal.

J. O. C——, a mulatto, aged 60, a native of Richmond, Va. Has lived in California since 1852. The first symptoms of leprosy developed in the latter part of 1884. Previous to this time there was no marked evidence of ill-health, except an occasional feeling of languor and mental depression. But in October of that year, small, slightly elevated, dull red patches appeared on the extensor surface of the right arm, and later upon the body and lower extremities. Occasionally these discolorations would entirely disappear, leaving the skin perfectly smooth and apparently healthy; always returning, however, after a brief period, their color changing to a reddish-brown; slight hyperesthesia, but no pain accompanying them. This condition continued for nearly three years, the patient in the meantime being able to follow his occupation—that of barber—though his general health was somewhat impaired.

In July, 1887, well-defined tubercular elevations appeared upon the face, body, arms and legs, varying in size from that of a small pea to a filbert—smooth and hard to the touch, and of a yellowish-red color. These are, at present, abundant on the forehead, eyebrows, cheeks, ears, lips and nose, causing great deformity of features. The lips are thickened, the ears stand out from the head and the nose broadened, giving a peculiar leonine expression to the face. There is some irritation and slight sensitiveness, but

no pain, except on pressure. There is marked hypertrophy of the whole cutaneous surface, thick folds of skin being noticeable, especially around the neck and in the vicinity of the joints. There is no history of syphilis, either acquired or hereditary, and the patient declares that he has never suffered from syphilis in any form.

The points of particular interest in the case are, that the patient has never resided out of the United States, has never visited a foreign country, has never been out of the State of California for 30 years, except a few months, 25 years ago, when visiting relatives in the State of Ohio, and he has not been outside of the city of Marysville for the past 17 years.

Reports from the Hospitals and Asylums of the Pacific Coast

SOUTHERN PACIFIC COMPANY'S HOSPITAL,

Sacramento, Cal.

Under the Care of T. W. HUNTINGTON, M. D.

[Reported by T. Olmsted, M. D.]

Two Cases of Slight Injury from Great Violence.

G. W. Mc ——, brakeman, æt. 28 years, on Jan. 12th, 1888, in attempting to board a moving train, fell, and, as he positively declares, one wheel of a loaded box car passed over his left wrist. He maintains that he was in a position to see, and that he withdrew his wrist to prevent the next wheel from also passing over it. His statement is corroborated by another railroad man, who was present. He was immediately brought to the hospital, when a thorough examination was made. An extensive contusion of the wrist was found, with a mark on the anterior surface, which might have been the impression of the iron rail. It was treated in the usual manner and recovery was rapid. The patient was discharged Feb. 3d. The function of the wrist was yet somewhat impaired, but will doubtless be restored in time. If the statement of the patient is true, this is certainly a paradoxical case, inasmuch as he sustained neither a fracture of the bones nor a laceration of the soft parts.

G. D——, brakeman, æt. 26 years, in attempting to couple a loaded box car with an engine, on the 9th of November last, caught his left foot in a frog and failed to make the coupling. His cries caused the engineer to pull his engine away immediately, but the car, which was upon a grade, followed back slowly over him, and finally stopped with the flange of the second wheel of the first truck resting upon his heel. The soft parts were extensively lacerated and contused, but no fracture resulted. The foot was, no doubt, very much protected by a heavy shoe, which he wore at the time of the accident. The shoe is now at the hospital and shows unmistakably the imprint of the flange upon the heel. Recovery has been slow and tedious, but good. This case is worthy of note, as railroad men look upon a foot caught in a frog, before a moving car, as lost.

CITY AND COUNTY HOSPITAL.

San Francisco, Cal.

UNDER THE CARE OF J. O. HIRSCHFELDER, M. D.

[Reported by H. O. HOWITT, M. D., House Physician.]

A Case of Mumps of the Submaxillary Salivary Glands, with Testicular Metastasis.

T. H——, æt. 21, admitted to City and County Hospital Dec. 28, 1887. Five days before admission, patient noticed a swelling under the body of lower jaw on the left side; two days after, a similar swelling appeared on opposite side. When patient entered hospital both submaxillary glands were swollen and hard on palpation, and the pharynx was in a state of inflammation. Temperature 104.6°; pulse 110; respiration 20. On the following day patient's condition was as follows: Tongue very dry, coated and fissured; lips were dry, and nothing abnormal was observed about the tonsils; parotid salivary glands and the lymphatics of the neighborhood were in no wise involved; thoracic organs normal. The diagnosis was as yet *sub judice*, although the possibility of the affection being mumps confined to the submaxillary glands was considered. On the following morning the left testicle was found to be swollen, followed by swelling of the right on the subsequent day, thus establishing the certainty of the diagnosis—mumps. This case is of interest, inasmuch as it demonstrates the exclusive localization of the disease to the submaxillary glands and the eventual development by metastasis of bilateral orchitis. Other conditions, which might have caused the latter affection, were carefully excluded in the differential diagnosis.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M. D., Sacramento, Cal.

Charpentier on the Use of Ergot.—DR. CHARPENTIER objects to the use of ergot before the completion of delivery, on the following grounds: 1. Ergot is dangerous to the fetus. The contraction of the uterus determined by ergot is spasmodic, tetanic, maintaining the organ in a state of constant tension, which profoundly disturbs the utero placental circulation. The disturbance must endanger the fetus; the more so the more intense and prolonged the action of the drug. 2. Ergot, by inducing uterine retraction, by applying hermetically, as it were, the uterine walls, against the fetus, renders difficult, sometimes impossible, the extraction of the fetus, where it might become necessary, and consequently will thus indirectly compromise the fetal existence. 3. The action of ergot being exercised on every part of the uterus, on the body as well as on the cervix, may result in retraction of the cervix, and thus militate directly against the end aimed at. 4. During labor, the administration of ergot may induce retraction of the cervix on the fetus, and thus directly interfere with spontaneous expulsion or extraction. 5. For the

mother, the tetanic retraction of the uterus, which too often follows the injudicious administration of ergot, means grave dangers by complicating the operations that may be called for to terminate labor. 6. Ergot administered before delivery of the placenta may lead to retention of this body by causing retraction of the cervix. The same is true of clots in the uterus. 7. Finally, ergot administered in placenta previa is far inferior to the tampon which is the heroic measure.—*Medical Press* and *Circular*, Dec. 28, 1887.

Endometritis in Pregnancy.—Endometritis deserves a more prominent place in the etiology of abortion than has hitherto been accorded to it. Its frequency in the non-pregnant condition warrants the belief that it occurs, occasionally at least, in pregnancy. The question, whether the death of the embryo does not precede and engender this morbid process, is resolved by the facts in the negative. In the majority of cases the endometritis precedes and provokes the abortion. Generally, but not always, we are able to show this by the history of the case; when not, we assume the existence of a metritis with slight symptoms that have been aggravated by gestation. That endometritis does not necessarily cause the premature expulsion of the ovum is shown by the fact that we sometimes discover its evidences in the ovum delivered at term. The determination of the presence of endometritis from the appearance of the extruded ovum, although not easy, may yet be made with certainty. Macroscopically the decidua vera seems thickened, and in spots opaque. Small solitary polypi are found on its internal surface. The decidua serotina presents the same appearances with the exception of the polypi. The disease is sometimes diffuse, sometimes circumscribed. Clinically, this disease is characterized by hemorrhage, pain, imperfect contractions, and abnormal sensibility of the uterus.—*Berliner klin. Wochenschr.*

Pathology and Therapy of Abortion.—When abortion is inevitable that treatment is best which insures the most complete removal of the ovum with least injury to the mother. Dr. Duehrssen believes that this result is not achieved by expectancy. According to his observations retention of portions of the decidua vera is the rule in abortions which terminate either spontaneously or under the use of the tampon. This retention is fraught with danger to the mother. It entails obstinate and exhausting hemorrhage, furnishes a nidus eminently favorable to the development of septic germs, and gives rise to a peculiar form of endometritis—endometritis *post abortum*. Chronic hyperplastic endometritis with profuse hemorrhage is generally the result of abortion. The loss of blood is much greater in expectancy than in active intervention. Neither irrigations, either hot or cold, nor the tampon arrest the hemorrhage completely. Hemorrhage ceases at once on removal of the ovum, and involution proceeds more rapidly and without consecutive hemorrhage, and excessive and sanious lochia, which are the usual consequences of abortion, left to itself. In addition to these advantages either intervention materially abridges both treatment and convalescence and withal is almost absolutely free from danger. Duehrssen ordinarily intervenes as soon as the os admits the finger, but if either the ovum begins to decompose or hemorrhage become disquieting, he proceeds at once with rapid

dilatation of the cervix. Contrary to the opinion of most authors Duehrssen concludes, from clinical as well as anatomical examination of the cases under his observation, that the placenta is first detached by uterine contractions, and subsequently the decidua vera—always from above downwards. Fragments of the decidua often remain in the uterus where one contents one's self with the tampon. Their retention is easily recognized either by inspection of the ovum or by use of the curette. Complete digital detachment of these fragments is impossible; the curette answers better. This instrument imitates nature in detaching the decidua at the deep glandular layer. On the contrary, the curette is a poor instrument with which to remove bits of attached placenta, especially after beginning decomposition. In passing over them it communicates the same sensation as when grating on the uterine wall. For this reason the author advises the combined method from the beginning of the third month—removal of the ovum with decidua reflexa by the finger and of the decidua vera with the curette. During the first two months the curette suffices.—*Archiv. f. Gynäkologie—Annales de la Société Medico-Chirurgicale de Liége*, Nov., 1887.

Laceration of the Cervix and Diseases of the Uterus. NOEGGERATH, of Wiesbaden, has selected from his note book one hundred cases of uterine disease in which fifty cervices were torn—thirty bilaterally either to the vaginal attachment or beyond, and fifty were intact. By comparison of the two sets of cases, he concludes: (1) That the position of the uterus is not influenced by cervical lacerations; (2) In women with uterine disease conception takes place more readily with lacerated than with non-lacerated cervix; (3) The length of the uterus is not affected by lacerations of the cervix; (4) Laceration does not increase the frequency of erosion, ulceration, or other disease of the cervical tissues; (5) Lacerations exercise no influence in the development of uterine disease—at most, in Noeggerath's tables, simple catarrhal endometritis preponderates with laceration (15:7); (6) Eversion of the cervix is never the immediate consequence of laceration. In fifty cases of torn cervix Noeggerath found eversion only twenty-four times. The primary cause of eversion is thickening of the cervical lips. If this thickening is limited to one lip so is the eversion also. Proof of this opinion is furnished by the fact that, if wedge-shaped pieces be excised from the greatly thickened cervix and the mucous surfaces brought together at the base of the incision, the eversion disappears. Thus, ectropion is cured without Emmets' operation. Eversion is normal in slight anteversion, with coincident prolapse of the first degree. It is often either produced or exaggerated in lacerated cervices by the use of Sim's speculum and by too great tension of either the anterior or the posterior wall of the vagina. In accordance with these observations, Noeggerath thinks it proper to drop the terms laceration and laceration-ectropion from uterine pathology. He recognizes no indication for Emmets' operation, but rather advises the treatment of complications. If cicatrices are the cause either of local pain or of more remote disturbance of nervous function their removal is to be recommended, but restoration of the cervix is never necessary.—*Deutsche Ztschr. f. Chir.—Schmidt's Jahrbücher.*

SURGERY.

By T. W. Huntington, B. A., M. D., Surgeon Southern Pacific Co's Hospital, Sacramento, Cal.

The Radical Cure of Hernia.—Dr. William Macewen objects to leaving the sac in the canal, as it then acts as a plug, tending to widen instead of obliterating the canal, and preventing the pillars from coming together. Organic union is difficult to secure between portions of tissue which have not had their surfaces refreshed. Most operations which include ligaturing and suturing of the sac, leave a small pucker or pouch on the peritoneal surface, a weak point which the liquid wave-like motion of the intestine speedily discovers. He reduces the sac within the abdomen and there forms it into a pad, with the convexity directed inwards. The steps of the operation are as follows: Having exposed the sac and ascertained the true position of parts, free its distal extremity, preserving any adipose tissue that may be adherent to it. Pull down the sac, and, maintaining tension, separate it from the cord and parietes of the canal with the index finger. The peritoneum, for about half an inch round the whole abdominal aspect of the circumference of the ring, is also separated with the finger nail. A stitch is secured firmly to the distal extremity of the sac; the end of the thread is then passed in a proximal direction several times through the sac, so that when pulled, the sac becomes folded upon itself like a curtain. The free end of the thread is then passed through the anterior abdominal wall from within outwards, about an inch above the upper border of the internal ring, appearing in the superficial incision and not penetrating the skin. The thread is pulled upon, and the sac, wrinkled upon itself, is thrown into a series of folds, its distal extremity being drawn furthest backwards and upwards. When the canal is closed the free end of the thread is secured by being passed several times through the superficial layers of the external oblique. To close the canal, a threaded hernia needle, guided by the finger, is made to penetrate the conjoint tendon in two places—first, from without inwards, near its lower border; second, from within outwards, as high up as possible on the inner aspect of the canal. This is accomplished by a single screw-like turn of the instrument. One thread is then withdrawn from the point of the needle, which is then, with the other extremity of the thread, removed. The conjoint tendon is therefore penetrated twice by this thread, and a loop left on its abdominal aspect. Another needle, threaded with that portion of the stitch which comes from the lower border of the conjoint tendon, is introduced from within outwards through Poupart's ligament, which it penetrates at a point on a level with the lower stitch in the conjoint tendon. The needle is then freed from the thread and withdrawn. It is now threaded with that portion of the suture which protrudes from the upper border of the conjoint tendon, and is introduced from within outwards through the transversalis and internal oblique muscles and the aponeurosis of the external oblique at a level corresponding with that of the upper stitch in the conjoint tendon. It is then freed from the thread and withdrawn. The two free ends of suture on the outer surface of the external oblique are drawn tightly and tied with a reef knot. This stitch may be repeated lower down the

canal, if though desirable, and the external ring may likewise be brought together. The operation and after-treatment are conducted antiseptically—catgut is preferred for suturing. Patients, unless of lax habit or engaged in laborious occupation, are not required to wear a belt subsequent to the operation.

Mr. C. B. Ball describes his operation, already alluded to, as follows: The sac is exposed and isolated, the separation being carried up to the internal ring and the peritoneum loosened for a little distance from that opening. Having ascertained positively that the sac is empty, its neck is grasped by a broad catch forceps and gradually twisted up; while this is being done the upper portion is freed with the left forefinger. Ordinarily four to five complete revolutions are sufficient, but the twisting should be continued until it is felt to be quite tight. While an assistant maintains the twist, a stout catgut ligature is placed round the sac, as high up as possible, tied tightly and the ends cut off short. Two sutures of strong aseptic silk are now passed through the skin, at a distance of about an inch from the outer margin of the wound, through the outer pillar of the ring, through the twisted sac in front of the catgut suture, then through the inner pillar of the ring and skin upon the inside. The sac being prevented from untwisting, can now be cut off in front of these A catgut drain is brought out through a separate drain at the back of the scrotum and the two sutures closed over lead plates, which lie at right angles to the wound; if necessary, a point or two of superficial suture may be put in. He deprecates the subsequent wearing of a truss.

The *New York Medical Journal* of January 21, 1888, contains several papers dealing with this subject, which, as the foregoing operators are referred to, will be of interest to review:

Dr. Charles McBurney strongly advocates the performance of some operation. He thinks that a truss is "an unreliable guard against the strangulation of a hernia," and believes that "no operative procedure is worthy of the name that does not in the large majority of cases secure to the patient a permanent relief from his malady and a freedom from mechanical contrivances." He prefers to close the sac by ligature, and regards Ball's method of torsion as not absolutely safe, as there is some danger that a portion of the intestine adherent near the mouth of the sac may be drawn into the twisted canal. He questions the superiority of Macewen's method in ordinary cases, over the carefully applied ligature. In large hernia it makes no provision against the great laxity of peritoneum which exists in all such cases around the internal ring. With Mr. Banks he regards it as impossible by any process to compel the edges of the external ring to grow together. He believes that Macewen's plan of closing the canal really amounts to subcutaneous suturing, as in Woods' method, for to obtain primary union it is necessary that raw surfaces should be brought together. He operates under antiseptic precautions, as follows: an incision is made, beginning opposite the internal ring and extending to the lower end of the sac. The sac is exposed, cleared from all its attachments, opened and examined for intestine or omentum, then ligatured with catgut and returned into the abdominal cavity. Six or eight interrupted sutures are now passed on the upper

side of the wound through the various layers of the abdominal wall, excluding the fascia transversalis or peritoneum. The same number of stitches is passed on the lower side, thus ensuring patency of the wound. Three or four stitches are next passed through both edges and loosely tied and the wound is packed with iodoform gauze. This wound heals by granulation in from five to six weeks.

DR. R. F. WEIR has followed the method of Czerny and Nussbaum in cases of strangulated hernia, but has since performed Macewen's operation. He uses heavy catgut as suture material. In the after treatment of these cases he has used a flat truss with very light pressure, but his experience induces him to abandon support of any character. He considers this operation as a marked improvement in the treatment of hernia, but believes that the methods employed are still unsatisfactory.

DR. ARPAD GERSTER believes in the open treatment of the wound after operation for radical cure in children, but not in adults. He thinks that packing the wound with iodoform gauze will prevent septic inflammation.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M. D., Sacramento, Cal.

Treatment of Otorrhea.—In the treatment of purulent middle ear inflammations, GOTTSTEIN recommends insufflations of calomel, *à la* Politzer, the ear having been previously cleansed by the injection of sublimate solution of the strength of 1:1000. The middle ear should be dried with absorbent cotton and inflation. The calomel does not provoke any irritation, and does not form crusts upon the mucous surface. It probably acts by being transformed into bichloride on coming in contact with the chlorides which exist in the pus. If there is much swelling of the mucous membrane lining the middle ear cavity, and a large perforation of the drum, a mixture of chloride of sodium and calomel can be used with advantage. That powder is slightly corrosive and produces some pain for a few minutes only.—*L'Union Médicale*, December 6, 1887.

Induction of Premature Labor in Amblyopia and Albaminuria of Pregnancy.—DR. T. R. POOLEY read a paper before the New York Academy of Medicine (N. Y. letter in *Journal American Medical Association*) in which the following conclusions were arrived at: (1) In all cases of pregnancy, not only should examinations of the urine be systematically made, but the eye should be examined with the ophthalmoscope, since, in a large proportion of cases where eye trouble exists, the patients make no complaint of disorders of vision. Frequently such troubles can be detected with the ophthalmoscope long before any disease of the kidney is shown in the urine. (2) In uræmic amaurosis without changes in the eye visible to the ophthalmoscope, even should the usual accompanying symptoms, such as dizziness, nausea and threatened convulsions be absent, this suppression is soon to be anticipated, and immediate induction of premature labor is indicated, without waiting until the life, as well as the sight, of the patient is in danger. (3) In neuro-retinitis the induction of premature labor is not only justifiable but urgently demanded. In some instances it is called for even in the earlier months of

pregnancy. (4) It is required in certain cases of eye-trouble recurring in successive pregnancies. (5) A woman having once suffered in this way during pregnancy, the relationship between cause and effect should be fully explained both to herself and her husband. [The correctness of these conclusions formulated by the author is thoroughly impressed upon one when suddenly grave eye symptoms make their appearance during pregnancy before general symptoms have directed the physician's attention to this serious complication. It is surprising to see how near death's door an albuminuric patient can come without knowing she is ill. It is certainly rare that an ophthalmoscope examination will reveal the cause of trouble when other methods of examination have failed to discover the disease, but the rare cases are often the most important both to physician and patient and emphasize the necessity of due precaution and skill.—B.]

Injury to the Labyrinth by Loud Sound—Total Deafness caused by a Bugle Note.—Dr. Thomas Barr (*Edinburgh Medical Journal*, January, 1888), reports the case of a man 24 years old, who, when seen, had been almost totally deaf for four weeks. He could not hear at all with the right ear; with the left he could hear only when the words were shouted close to his ear or spoken through a hearing tube. He had been slightly hard of hearing from childhood, noticeable especially when listening to a public speaker. Four weeks before coming for advice, he was seated in a volunteer drill hall, when suddenly six bugles were simultaneously blown at a distance of seven or eight feet from where he was seated. Immediately after this intensely loud and startling sound he experienced a ringing in the right ear (the one turned toward the source of sound). There was at first no diminution of hearing, but on the following morning profound deafness seized him, and has continued unaltered ever since. There is now a rushing noise like steam "blowing off" with an occasional giddiness. On examining his ears I found evidence of old suppurative disease in both of them—in the left, atrophy and adhesion of the tympanic membranes, and in the right, destruction of three fourths of the membrane. The Eustachian tubes are permeable. A watch is not heard either by air or bone conduction. Politzer's acumeter is not heard in either ear. The disease of the tympanum which existed here had no doubt increased the susceptibility of the man's ear to injurious influences. It is to be noted as a very important fact that, *if the ear is already diseased*, loud sounds are much more apt to injure the organ. We know that the organs of different persons present great variety in their vulnerability, as it is called, to injurious impressions. In the case of the organs of hearing we find this vulnerability often increased, not only by the mysterious and far reaching influence of heredity, but probably still more frequently by actual existence of a disease in the ear, perhaps unknown to the individual. Here, in consequence of the tympanic mischief, the power of accurate adjustment of the ear was impaired, and the intense waves of sound were allowed to act with damaging effect upon the endings of the nerves of hearing.

Spasmodic Entropion Treated by Stretching the Orbicularis.—The following case is reported in the *British Medical Journal* of January 7, 1888, by Dr. David McKeown: Mrs. W——, aged 69, was first seen Nov.

9th last. She had been ill nearly three months; there was mucopurulent conjunctivitis of both eyes, ulceration of both corneæ, very extensive in one eye, double iritis with numerous posterior synechiæ, and spasmodic entropion of the lower lids. For the entropion he stretched the orbicularis by an extreme separation (maintained for about a minute) of the eyelids, using for this purpose the eyelid retractor. This simple manipulation accomplished its object. When the lids were, before its performance, placed in their normal, they immediately resumed their morbid position, notwithstanding the utmost efforts of the patient. She says that at no time since the stretching (now six weeks) have the lids been turned in except momentarily at the time of making local applications.

Menthol in Laryngeal and Pulmonary Phthisis.—Dr. Albert J. Beehag reports (*Edinburgh Medical Journal*, January, 1888), the results of his experience in treating laryngeal phthisis, according to the method of A. Rosenburg, of Berlin. A twenty per cent. solution of menthol in olive oil is generally used. Dr. Beehag makes two or three injections of about fifteen minims of the solution directly to the part affected at one treatment. For this purpose he uses a syringe invented by himself, by which he can inject into either larynx or trachea. No disagreeable effects follow the injection. The applications should be made once or twice daily for two months, and should be combined with inhalations of five minims or as much as the patient can bear of the same solution in a pint of steaming water, if possible at first every hour during the day, or drop some of the solution on cotton, and have the patient wear it frequently before the mouth and nose. The menthol having some anesthetic action, pain and other uneasy sensations disappear a few minutes after the application, and the *bête noir* in laryngeal phthisis, viz., disphagia, is combatted to such an extent that the patient is enabled to eat without pain. The antiseptic properties of menthol also are very marked, as has been pointed out by Koch and others. If the ulcerations do not improve under menthol, it may be combined with the lactic acid treatment (introduced by Krause), when it should be injected two or three minutes before the application of the acid. With a view of securing more prolonged contact with the diseased tissue in laryngeal phthisis when there is much secretion present, the author insufflates the following powder alternately with the injection:

℞—Menthol, ʒi.
Ammon. Chlor. ʒi.
P. Acid. Boric. ʒi.—M.

Naphthol Solution in Ozena and Purulent Rhinites.—A. Ruanth irrigates the nasal cavity by Weber's siphon, with a solution of naphthol, prepared according to the following formula:

℞—Naphthol, gm. 12.
Alcohol, 84.

One drachm, in a litre of tepid water, to be used at a time. The patient experiences a disagreeable smarting sensation which soon passes away. A weaker solution can be employed, or still better, the irrigation can be preceded by an intranasal spray of a two or three per cent. solution of cocaine.—*Arch. de Laryngol et Rhinology. L'Union Médicale.*

DERMATOLOGY AND VENEREAL DISEASES.

By G. L. Simmons, Jr., M. D., Sacramento, Cal.

Very Early Syphilitic Headache.—Dr. Curtis reports a case of what he believed to be early syphilitic headache, although the history of syphilis was a little doubtful. The patient, aged about thirty-five, was infected by her husband with a sore which was treated locally for two weeks in the Charity Hospital, and she was there told that she had syphilis, but was given no medicine internally. The sore being cured, she left the hospital and at about that time began to suffer from headache, for which, a few days later, she sought his advice. There was severe pain all over the scalp, but the forehead was not affected; there was marked tenderness on pressure; there was no eruption or enlarged glands, and no symptoms except the headache, which was so severe as to interfere with sleep. Syphilis was thought of as a cause, but the author had never seen a case in which headache had occurred so early after the presumable initial lesion. Remedies for the correction of indigestion proved of no avail; the headache grew worse, and after five or six days had been passed without sleep she was given the mixed treatment with $\frac{1}{4}$ of a grain of bichloride of mercury and 4 grains of iodide of potassium three times daily. No effect following, about the fourth day the dose of the bichloride was doubled, and within two days more the headache and tenderness over the scalp disappeared. She continued to take the medicine about a week and then omitted it for two or three days, when the headache returned and tenderness developed over the forehead and bones of the face. There was closure of one eye from edema which lasted only a few hours. The headache was relieved by resuming the use of the bichloride. The doctor had still been in doubt regarding her having syphilis until about a week later when characteristic syphilitic sore throat developed; a small sore appeared above the meatus urinarius and two somewhat enlarged glands were found in the groin. The ulcer at the meatus had the appearance of a mucous patch. Infection was supposed to have taken place about six weeks before the appearance of the headache.—*New York Medical Journal*, January 14, 1888.

Decline of Marriage and Increase of Prostitution.—According to statistics collected and reviewed in the *Pall Mall Gazette*, prostitution is gradually elbowing matrimony out of the field. The falling off in the proportion of marriages per 1000 is shown here: In England, in the year 1866, there were 17.5 marriages to the thousand of population, while in 1886, the proportion had decreased to 14.1 marriages to the one thousand of population. In Belgium the rate had decreased from 15.7 to 13.4, during the same time, and in France for the same period a decrease from 16 to 14.8 was observed. The average proportion of marriages to the thousand of population during twenty years for Austria was 17.1, which diminished to 15.5 in 1886; in Germany, 17.4, in 1886 to 15.8, while in Holland, the falling off was from 16.2 to 13.9. The mean age at which marriage occurs has also been steadily rising since 1873. In 1886, it was 28.2 for men and 25.9 for women. The decrease in and postponement of marriage mean increase in prostitution; for no one maintains that the average

man of late years has become more ascetic than formerly. These figures apply to Europe. They may, in a measure, be accounted for by the emigration of people at the marrying age.—*Medical Record*, January 21, 1888. [In this connection, it is interesting to know the yearly proportion of marriages for the past ten years in Sacramento County. The population of which, in 1877, was 22,500, had increased, in 1887, to 50,000, or 100 per cent. As for the marriages, the records of the county furnish the following: January 1, 1877, to January 1, 1878, 299; 1878 to 1879, 315; 1879 to 1880, 243; 1880 to 1881, 330; 1881 to 1882, 358; 1882 to 1883, 314; 1883 to 1884, 324; 1884 to 1885, 370; 1885 to 1886, 347; 1886 to 1887, 310. In other words, from a proportion, in 1877, of 13.3 marriages to the one thousand of population, it had decreased in ten years to 6.2.—S.]

MATERIA MEDICA AND THERAPEUTICS.

By Wm. Watt Kerr, M. A., M. B., C. M., Professor of Therapeutics, University of California, San Francisco

Antipyrin as an Anodyne.—Since M. Germain Sée called attention to the anodyne effects of antipyrin many gentlemen having been using it are now sending their results to the various journals. Among those who have materially aided in establishing this influence of the drug are Fränkel, of Berlin, Hirsch, of Hanover, and Waugh, of Hanover, and from the testimony of these gentlemen, it would appear that in antipyrin we have an agent which can be given by the mouth or hypodermically as a substitute for morphine in the treatment of painful maladies, such as neuralgia, sciatica or rheumatism. When injected beneath the skin in doses of five grams the action is prompt and certain, the effect generally being produced in about fifteen seconds and lasting for several hours, while there are none of the disagreeable after-effects so characteristic of morphine.

Antifebrin as an Anodyne.—Like its above mentioned rival among antipyretics, antifebrin is also finding a permanent place among nervines. The latest reports show that it is very useful in relieving the pain of neuralgia, sciatica and locomotor ataxia.

Bichloride of Mercury in Circumuterine Inflammations.—A recent number of the *New York Medical Journal* contains a paper by Dr. H. H. Vineberg, in which he reports between thirty and forty cases of old standing periuterine inflammation, which were relieved by the prolonged administration of bichloride of mercury. This remedy is given internally in doses of grs. $\frac{1}{24}$ thrice daily, either alone or combined with iodide of potassium, and the usual methods of local treatment are continued.

Benzoate of Soda in Uremia.—Starting from Cohneim's theory of uremia and from the fact that benzoate of soda inhibits the formation of urea in the system, Dr. Partzevsky has administered benzoate of soda in ten cases of uremia, in seven of which the patients were suffering from parenchymatous, and in three from interstitial nephritis. The drug was given every hour, in doses amounting to between one and two drachms per diem, and was given either in capsules, wafers or enemata. Nine

patients recovered and one died. Examination of the cases showed that benzoate of soda cuts short the attacks, the convulsions gradually disappearing, and giving place to a deep sleep, which usually terminates by the patient awakening in a fully conscious condition. When given on the appearance of premonitory symptoms, such as headache, nausea or dilatation of the pupils, the salt may prevent any future development of the fit. The albuminuria ultimately disappears.—*British Medical Journal*, January 14, 1888.

Creasote in Pulmonary Tuberculosis.—Over five thousand cases of pulmonary tuberculosis treated by the internal administration of creasote have been reported by SOMMERBRODT, of Breslau. His investigations have been conducted through a period of nine years, and he concludes that twenty-seven per cent. of his patients completely recovered, while the remainder, although suffering from the disease to some extent, are still able to be about. He attributes the failure of this method in the hands of other clinicians to the small doses of creasote which are generally prescribed.—*Medical News*, January 21, 1888.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, Cooper Medical College, San Francisco, Cal.

The Staining of Actinomyces.—The method suggested by A. BARANSKI excels those already in vogue for simplicity, accuracy and speed. It is adapted for fluids, as well as sections supposed to contain the fungus. The staining fluid employed is a solution of picro-carmine, and, in the case of fluids, is used as follows: The fluid is thinly spread on a cover-glass and carefully passed through a flame, care being taken against overheating; a few drops of the staining fluid are then added to the cover-glass, or the latter may be immersed in the same, the staining being complete in about three minutes. The excess of coloring matter is now removed in water, and it is examined under the microscope in glycerine or water, unless a permanent specimen is sought, when Canada balsam is used. The actinomyces, after this process, are stained yellow, the remaining parts of the specimen red. Sections are stained in the usual manner with the picro-carmine solution.—*Deutsche med. Wochenschrift*, Nr. 49, 1887.

Difficulties and Mistakes Occurring in Diagnosis.—GERSUNG read an interesting paper on this subject, before the Vienna Medical Society. Fluctuation is usually an important diagnostic criterion, although this sign may be present in the absence of free fluid. A trocar has often been introduced into a lipoma, or a bistoury into a carcinoma. Palpation, usually of great diagnostic value, is often aided by the imagination. The following case will illustrate this: A woman was suffering from symptoms indicating a stomach affection; the diagnosis wavered between carcinoma and ulcer of that organ. A few days before the death of this patient, a tumor was felt in the stomach, and the diagnosis accordingly made of carcinoma. At the autopsy a cancer of the stomach did exist,

but situated in such a position that palpation of the same during life was an impossibility. The misleading results often achieved by exploratory puncture, are exemplified by the following case: A young man came into the hospital, suffering from severe vomiting. A very painful tumor suddenly appeared on one side of the scrotum; it was punctured and fluid blood withdrawn. Diagnosis: Hemorrhage into the tunica vaginalis. The tumor became softer and constitutional symptoms disappeared. One week later an operation was performed, owing to recurrence of pain and vomiting. An omental hernia was found, on the surface of which were large veins; one of these had been punctured, leading to an error in diagnosis. A man sustained an injury to an old scrotal hernia. Examination revealed a large tumor on the right side of the scrotum; there was no fluctuation. At the operation, an hematocele was found; there were no traces of a hernia. Errors in diagnosis are made when a rare disease presents itself as an every-day affection. A young girl, 20 years of age, had for a long time a round, movable tumor, the size of a walnut, on the inner border of the sterno-mastoid muscle, on a level with the hyoid bone. The tumor, after removal, proved to be an adenoma of a carotid gland. In many severe affections the local symptoms are slight. The diagnosis made by the attending physician, in the case of a young lady who was confined to her bed for four months, was acute coxitis. Gersung found the affected limb freely movable, and no painful points were detected. Diagnosis: Neurosis of the joint. In this he was mistaken, as ankylosis eventually resulted. In other instances, the great number of symptoms make diagnosis difficult. A woman who had borne five children, and was always healthy, suddenly became affected with uncontrollable vomiting and cessation of menses. Pregnancy was diagnosed. Patient became weaker and more emaciated, and pronounced meteorism developed. Examination revealed an immovable tumor, arising from the pelvis and extending about a hand's breadth above the symphysis. The rectum was compressed by the tumor at a point 6 cm. above the anus. After evacuation of the rectum by injections, fluctuation could be discerned in the pelvic tumor. No sound could be introduced into the uterus. Diagnosis uncertain. Either a cyst in the right ligamentum latum or extra-uterine pregnancy. Laparotomy. In the depths of the uterus, fetal parts could be felt and hydramnios was present; the uterine contents were removed. Ten days after operation, patient, meanwhile improving, was again suddenly attacked with vomiting. A tumor could now be felt, probably emanating from the stomach. Laparotomy was again performed and a cancer of the stomach found. The pylorus was resected, recovery following. A woman expectorated or vomited blood. Examination of the lungs was negative. Diagnosis: Ulcer of the stomach. A day after, the hemorrhage was found to have arisen from the gums, owing to the extraction of a tooth. In another case, a small tumor suddenly developed on the head, and the diagnosis of abscess was made. It proved to be a sarcoma of the diploe. In a case of long standing icterus, the etiology of which was obscure, a celebrated professor, on palpating the liver, found an unusually hard part, made the diagnosis of cancer. Autopsy: No cancer but atrophy of the liver. A man, 50 years of age, had a small tumor on

the tongue. Diagnosis made by a specialist, syphilis; by a surgeon, cancer. The tumor disappeared in a few days without treatment.—*Wiener medizin. Presse*, Nr. 50, 1887.

Virchow on the Diagnosis and Prognosis of Cancer.—The recent controversy engendered by the ailment of the Crown Prince of Germany most probably provoked the author (Virchow's *Archiv.*, Bd. c, xi.) to deal with this subject. The term malignancy or tendency to generalization, as applied to cancer, has ceased to be a diagnostic criterion when referred to the same at a time prior to the development of metastases. Even an innocent growth, as enchondroma and myxoma, occasionally forms metastases. The diagnosis must be based on the histological structure of the tumor. A cancer is analogous in its histological structure to a gland without an excretory duct. A veritable cancer bacillus, when found, might explain the metastases. The tissue products emanating from the cancer cells might explain the cachexia. However superior the anatomical may be to the clinical diagnosis, the former may mislead, as occurs when mixed tumors composed of different tissues exist. A cancerous papilloma (*"Wursenkrebs"*) is nothing but a mixed tumor composed of cancer and a local hyperplasia of preëxisting tissues. The anatomist is less likely than the clinician to err in his diagnosis. The latter can only see the surface of the disease. Enlargement of the neighboring glands cannot be considered diagnostic; they may be simply inflammatory in character. He then conducts us to an important part of his paper, viz.: the histological examination of a tumor. When tissues are submitted to the microscopist for examination, and when the same represents a part of the centre or periphery of a tumor, it is likely for him to err, inasmuch as the tissues submitted may not belong to the diseased site. This is especially the case with mixed tumors. Here, the real error is made by the clinician and not the anatomist, for the latter only bases a conclusion on what is submitted to him. Papillary excrescences, coëxisting with ulceration, frequently exemplify this. This papillary hyperplasia often gives the impression of independent tumors. He formerly advocated the early removal of any solitary new growth, but this is referred to as antiquated wisdom. Modern surgeons have established the primary local character of malignant local tumors. Cancer extends not by enlargement of the original centre, but by the formation of accessory foci, which must be distinguished from the disseminated metastatic foci characteristic of malignancy. The spontaneous cure of cancer is considered. Many supposed cures of hepatic cancer were really gummata of that organ. Virchow has observed a cicatricial process in hepatic cancer caused by fatty metamorphosis of the cancerous cells. Cancer in itself is not a permanent tumor, for the cells have only limited vitality. The real obstacle to healing is due to the formation of accessory foci. With regard to medicine, he deprecates the skepticism of the profession, and commends the use of chian turpentine. He also refers to the use of the thermo-cautery, as recommended by Nussbaum. If cancer is a local disease, it may be possible to cure it at an early stage of its existence.—*British Medical Journal*, Jan. 21, 1888.

Sacramento Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: MARCH, 1888.

PURE WATER AND GOOD SEWERAGE.

In his presidential address before the American Public Health Association (*Medical News*), DR. GEORGE M. STERNBERG mentions some wholesome truths, which are not inapplicable to Sacramento. This, the fifteenth annual meeting of the Association, was held at Memphis, which place possesses, as the speaker says, an historic interest in connection with sanitary reform. Having been devastated by the yellow fever epidemic of 1878, the need for better sanitation became so apparent that a system was devised and put into operation which is to-day frequently quoted as a standard of practical efficiency.

Dr. Sternberg says that epidemics are often blessings in disguise, when nothing short of one will arouse the people to the necessity of sanitary improvement. "A cholera epidemic which decimates the population of a town without sewers or proper water supply, will prove a blessing in the end if it leads to the introduction of an ample supply of pure water and of a system of sewerage by which the mortality from typhoid fever and other endemic diseases is greatly reduced. But this mode of obtaining sanitary improvements is an expensive one and rather hard on the victims of the epidemic." It is beyond question that this is absolutely true, and the best efforts of those who recognize the need and the importance of improvement will usually be without avail until a sensational episode arouses public lethargy. "It is a remarkable fact that in matters of this kind individuals and corporations are slow to profit by the experience of others, and that it is commonly only when the fatal results of neglect are brought under their immediate observation that they are ready to apply the remedy which is always more or less expensive."

Any measure of this kind, which must necessarily be on an extended scale, is expensive, but the ultimate saving of life and increase of health and happiness more than balance the outlay. Does the elector who votes against a sanitary measure when submitted to the people, or who, as a citizen, opposes a needed improvement, ever weigh against the extra taxation and his share of that expenditure the lives of those dearest to him or even his own? This is true of all the preventible diseases, and the profession, while recognizing the truth in its widest and most general application, can point in every city to deaths due solely to neglect of the most elementary rules of sanitation.

Sacramento is no exception to this rule, and in our midst families have suffered these irreparable losses. Our present condition is good, but that it is so, is no excuse for false security. Our death rate is low, our water supply superior to that of other and neighboring towns, our sewerage, as far as it goes, is good ; but, in case of a general epidemic, we are exposed to dangers without and within. An epidemic of enteric fever or cholera, which would visit the river towns above us, must inevitably infect our water supply. This might again be rendered safely usable by the exercise of proper precautions; but few adopt them, and the classes in the community most exposed to epidemic influence are least prone to avail themselves of this protection. The dangers within come from the unsewered condition of the greater portion of the city, the many uncemented vaults and the natural conditions of soil and ground water. These evils are well known, but the same spirit of apathy which is so universal pervades our community.

The Improvement Association has already accomplished some good work in many directions, and, in relation to water supply and sewerage, its special committees have brought the questions nearer a practical solution. The matter of a pure water supply, with a source removed from the possibility of contamination, has been often discussed. To bring this water from a mountain reservoir and deliver it in its original purity, is out of the question, unless on the basis of some gigantic coöperative scheme. To improve the existing source of supply is impossible, just as its steady and certain deterioration year by year is inevitable. Meanwhile, there exists to the east of the city, at a distance of about one mile, what appears to be an inexhaustible supply of excellent water. It is found at a depth of 120 feet and rises to within 16 feet of the surface. In tapping this

water-bearing stratum three layers of hard pan are passed, which secures it from local contamination. The expense of rendering this available is trivial, when compared with any scheme to procure mountain water, and the gain to the community from every point would be enormous. Regarding the question of sewerage, no steps can be taken until plans are prepared and estimates submitted. Yet this essential and tedious preliminary seems to be still in futurity. We must, at present, continue to trust that an epidemic will not find us in so defenseless a condition.

NOTES.

Index Medicus.

The *Therapeutic Gazette*, alluding to this most valuable publication, writes in what may be considered a warning tone. The receipts are still far behind the expenses, and the *Index* is really being carried through the generosity and public spirit of Mr. Geo. S. Davis. This certainly seems an ungrateful and thankless task, the continuance of which is poorly assured. For the first time the actual figures are published, and we find that there are only 240 subscribers in the United States and 123 elsewhere, a total of 363! In this country several of the States do not receive even one copy, while of 9 States 6 receive 2 copies and 3 States 1 only. California pays for 3 copies, of which 2 belong to Sacramento. Like many necessities, the immense utility of the *Index* is hardly realized when it is ever at hand; but do reading members of the profession fully understand what their position would be if, after an existence of nine years, it were to cease publication? The subscription price is large, yet the men to whom it is most useful can well afford to contribute, with the promised prospect of its reduction. We have already directed attention to an easy means of increasing the list of subscribers, namely: by securing the coöperation of the State and larger local societies. A subscription from each of these could well be spared and would prove a light tax on individual members. We think that California can do better than three copies.

Propriety and Medical Reporters.

Dr. N. S. Davis, in the *Journal of the American Medical Association*, protests against the publication in medical journals of "what purport to be verbatim reports of clinical lectures without any evidence that such reports have been approved by the lecturer." From this we infer that the lectures were reported with-

out Dr. Davis' permission, and that therefore their publication was unauthorized. As reports of clinical lectures appear in THE MEDICAL TIMES, we desire to state that none are received for publication except on the express condition that the lecturer has authorized and is cognizant of their appearance. We might add that a copy of the journal containing the report is always mailed to the author.

Acid Sublimate Solution.

In THE MEDICAL TIMES, November, 1887, Dr. A. E. Brune, writing from Berlin, mentioned that an American (Dr. Laplace) was engaged in experiments at the Hygienic Institute with an acid solution of the bichloride of mercury, which he expected would render this germicide active in albumenous fluids. The *N. O. Medical and Surgical Journal* of February, 1888, (of which city Dr. Laplace is a resident) gives the result of his observations, as published in the *Deutsch. med. Wochenschr.*, Nr. 40, 1887. The acids used were hydrochloric and tartaric, but preference is given to the latter as it is more stable and does not act on the texture of absorbent material. The addition of the acids materially increases the efficacy of carbolic solutions as well as those of corrosive sublimate. Thus, a four per cent. crude carbolic acid solution with two per cent. hydrochloric acid destroyed anthrax spores within one hour, while a four per cent. carbolic solution alone had not destroyed them in twelve days. A sublimate solution 1:20,000 with hydrochloric acid 1:10,000 added, destroyed anthrax spores in twenty-four hours, neither alone being able to accomplish it in the same time. His standard solution is sublimate 1 part, tartaric acid 5 parts, water 1,000 parts. The gauze is made from sublimate 5 parts, tartaric acid 20 parts, water 1,000 parts. The gauze is left in this solution for about two hours, then pressed out and dried. The solution is non-irritant, and does not interfere with the application of other agents as iodoform.

Illegal Practitioners at Sausalito.

The Grand Jury of Marin County has found a true bill against "Dr." Jennings, alias Jenningson, for practising illegally at Sausalito, and the defendant is now under bonds to appear for trial at the next term of Court. The District Attorney has taken up the case and there seems to be every prospect of a conviction. A "Dr." Frank Barnett, who claims to be a Fellow of the Royal College of Surgeons, England, has also been arrested, and is under bonds to appear. His case has already been postponed from time to time, presumably in the absence of the delinquent. Dr. H. J.

Crumpton has done good service in both these cases, and he deserves the thanks of the profession for the trouble and annoyance which must necessarily be incurred in proceedings of this character.

Alleged Fatality Following Vaccination.

The press dispatches of a late date have mentioned the death of J. N. Lepesh, who died at San Jose, "from erysipelas, following vaccination." It is a matter of great public interest, that all such cases should be carefully examined and accurately reported, as a vague and indefinite statement of this nature is likely to prejudice the more ignorant portion of the community against vaccination. We learn that Mr. Lepesh was carefully vaccinated (one insertion) with bovine virus, from a reputable firm. The vaccination failed to take. Ten days later he was again vaccinated, this time successfully. About ten days later erysipelas appeared, causing but little pain, and no anxiety on the part of his medical attendant. On the morning of his death he was up and around the house. He complained of faintness and died suddenly, before medical aid could be summoned. The erysipelas, quite plainly, had no connection with the vaccination, the exciting cause being the wound. In the absence of an autopsy, it is impossible to state the precise cause of death, but the history of the case points to the cardiac centre. We thus find the coincidence of erysipelas and vaccination with subsequent heart failure. The occurrence of this death and rumors of others, are particularly unfortunate at present, when the object of every intelligent community is to ensure thorough vaccination.

Vaccination and Sore Arms.

There has recently been very general complaint of the number and severity of sore arms following vaccinations, carefully performed with bovine virus, from well known firms. This has been particularly the case with two of the Eastern sources of supply, while it has been exceptional in other instances. As precautionary measures, great care and absolute cleanliness on the part of the vaccinator should be rigidly observed. Modern surgery has taught the value of asepsis by demonstration, and in vaccination the need for care is greater, for the operator, while endeavoring to create a poisoned wound, should so guard it that none but the specific contagium can find an entrance. When bovine virus is used, it is well to deal only with those firms whose reputation is uniformly good. The profession, in a great measure, has the remedy in its own hands, by urging the adoption of humanized virus and,

wherever possible, arm to arm vaccination. The whole process is thus within the control of the operator, as, starting from his *vaccinifer* with proper care, he can know beforehand the result of each insertion. The operation is no longer one of experiment, but of certainty, in the procedure and its protective influence. Even at those vaccine farms whose reputation is excellent, much of the management and manipulation is in the hands of *employés*, without special training. From them we cannot anticipate as good results as are ensured by the careful and experienced practitioner, who gives his personal attention to the whole procedure.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting Jan. 17, 1888.

The President, WM. ELLERY BRIGGS, M. D., in the Chair.

New Member.—Theodore Olmsted, M. D., was duly elected a member of the Society.

Case of Placenta Previa.—DR. G. A. WHITE reported a case which he had seen on January 9th. The woman, a 4-para, was then at full term. In October, 1887, she was thrown from a cart, at which time she flowed slightly; this was followed by a hemorrhagic discharge each week, which finally became daily. When seen on the 9th, she was exsanguinated, but still flowing freely. On examination the os was found to be about the size of a dollar, with the placenta presenting on the right side. The finger could be passed between it and the uterine wall; the head could also be felt. The vagina was tamponed and, after waiting an hour, the membranes were ruptured and delivery effected by the forceps. The child was living, but could not be resuscitated. The cord was twisted around the right arm and twice round the neck.

Antiseptic Cleansing of the Puerperal Uterus.—DR. G. L. ATKINSON read a paper on this subject. He believed that many lives had been sacrificed from want of attention to the antiseptic cleansing of the uterus after labor and abortion, and ignorance of the correct indications for and methods of performing the same. All unnecessary interference with the parts during and after labor, was to be deprecated, as exposing the woman to a possible source of infection.

Indications.—Antiseptic cleansing of the uterus was indicated: 1. Where with localized tenderness over the uterus, there was a high pulse and temperature and fetid discharge from the uterus. To ascertain this, it is necessary to wash out the vagina with some inodorous antiseptic solution, and then passing the finger into the cervix to decide whether or not it is fetid. Where there is much tenderness, this should be performed under an anesthetic, and the cavity of the uterus should be thoroughly explored with the finger. 2. Where, with a high pulse and temperature, there is

any question as to the complete delivery of the placenta, it is impossible to emphasize too strongly the importance of a thorough examination of the placenta after delivery, to ascertain whether a portion has been retained. 3. Where portions of the secundines have been retained *in utero* and give rise to increase in pulse and temperature; where it has been impossible to remove the membranes completely at the time of delivery. It is much better to leave a portion of membrane, than to open up the whole genital tract in search of a small piece. 4. After the birth of a putrid fetus. 5. Where the uterus remains abnormally large after labor, and where, as a result owing to the decomposing clot, symptoms of septic infection develop. In such cases the finger ought to be introduced. 6. In the puerperal state, when symptoms of septicemia develop. 7. Where there is a flexion of the uterus retaining portions of the lochia, which decompose and become a source of septic infection. 8. In some cases of imperfect abortion or premature labor, where instrumental interference has been resorted to. 9. Where the hand has been introduced, as in cases of *post-partum*, hemorrhage, adherent placenta, or uterine hydatids.

Method. The patient is to be placed so that her shoulders are some inches higher than her hips. This is just the reverse of what is required in gynecological douching, the object being to prevent any quantity of the disinfecting fluid remaining in the uterus by giving it free escape. Care should be taken that the os uteri is relaxed and sufficiently dilated to admit of a free escape of the fluid. The continuous flow is much preferable to the ordinary bulb syringe, the jerking motion of which often produces pain and discomfort. The fluid injected should be at a temperature of 115° F. and continued until it becomes quite clear and sweet or admixed with a little clear blood. Special attention should be given that the temperature be high, for two reasons: 1st. Because in these cases the uterus is quite often atonic; and, 2d. Where the corrosive sublimate solution is used, to be sure that none of the salt remains in the uterus. The fundus should be grasped by the hand of an assistant, in such a manner that the thumb and forefinger compress each Fallopian tube, so that the fluid may be squeezed out, brought in contact with the whole surface of the uterine cavity and prevented from entering the tubes. It is advisable that an anesthetic be administered, at least during the first operation, as the pain and tenderness may be considerable, and the freedom of manipulation which is gained insures the thorough exploration of the uterine cavity.

Antiseptics.—The two antiseptics which are most reliable are corrosive sublimate and carbolic acid; of these the latter, with proper precautions, can be best depended on. The rapidity with which it is absorbed and the small quantity required to produce its toxic effects, must be kept strictly in view. There are numerous cases reported where poisoning has taken place, some ending fatally. Care should be taken that the solution be not stronger than one to three or four thousand, which is sufficient. The sublimate solution should not be used in disease of the kidneys. In this case carbolic acid is a much safer antiseptic.

Dr. G. A. White said that his experience with corrosive sublimate had not been extensive; he preferred carbolic acid. He doubted the pro-

priety of leaving any membrane in the uterus, when it was possible to remove it. Cleanliness was the main object.

Dr. W. A. Briggs said that in abortion it had been his practice to swab out the uterus, instead of injecting it, with an antiseptic solution. There were several dangers attending injections. The fluid might pass through the Fallopian tubes into the peritoneal cavity. Thrombi, especially infected thrombi, might be displaced. The fluid might be injected directly into the maternal circulation. Poisoning had ensued from absorption of the fluid. He preferred to swab it out with a 5 per cent. carbolic solution, or 1:500 of corrosive sublimate. He had used this method frequently, without any deleterious effect. The procedure was safe and effective. In a number of cases he had not seen an inflammatory symptom.

Dr. H. L. Nichols frequently injected the vagina, but very rarely the uterus. After labor, when due care was exercised, there was little danger of leaving portions of membrane. In abortion he had not met with unfortunate results, though he had often been unable to thoroughly remove the uterine contents.

Dr. I. E. Oatman seldom injected the puerperal uterus, and had never regretted the fact. He preferred the bichloride of mercury in the strength of 1:1000, with the addition of three-fourths of a grain of chloride of zinc to each fluid ounce of the solution.

Dr. H. Voeller used carbolic acid locally in cases of perineal laceration. He believed in thoroughly emptying the uterus, and that constant friction and kneading were great aids in this direction. It was often difficult to distinguish whether the fetor of a lochial discharge implied the element of sepsis. He thought that many cases of septicemia were due to the carelessness of attendants.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting Jan. 10, 1888.

The President, J. D. Arnold, M. D., in the Chair.

New Members.—Geo. W. Merritt, M. D., and Emma S. Merritt, M. D., were duly elected members of the Society. Dr. R. I. Bowie was reinstated as a member.

Case of Cholecystotomy.—Dr. C. A. von Hoffmann reported a case of cholecystotomy in a lady fifty years of age, from whom he had removed by this operation nearly 150 gall-stones, ranging in size from a hazel nut to less than a pea. It was now nearly three weeks since the operation was performed, and the patient was making an excellent recovery.

Dr. J. H. Stallard during the last year had seen six cases, in which there was jaundice from impacted calculus, and in three of these the operation was suggested. In two of them laparotomy was performed, but in one the calculus was not discovered, although at a subsequent autopsy it was found impacted in the common duct and lying behind the head of the pancreas. Such a case showed the necessity for thoroughly exploring the duct.

Dr. E. G. Frisbie reported an autopsy, in which he found two ducts opening into the bowel; the higher one was obstructed by a calculus, but the lower one, which entered the intestine several inches further down, was patent.

Dr. J. A. Miller mentioned a case, in which he found a triangular stone, with one angle in the cystic duct and another in the common duct.

Dr. Geo. Chismore reported an instance of impacted gall-stone, unaccompanied by jaundice The case was that of a young lady, who, after a fall from her horse, began to suffer from severe abdominal pain. In the course of time a tumor developed in the region of the gall-bladder, but this very frequently disappeared and never could be felt when the patient was lying on her back. After several years' suffering the patient died, and the autopsy showed the gall-bladder to be normal, with the exception of inflammatory adhesions to surrounding tissues, and the presence of a large hour-glass-shaped calculus in the common duct.

PUBLIC HEALTH.

By W. R. Cluness, M. A., M. D., Sacramento, Cal.

Mortality.—The deaths registered in 87 town-districts in the State during the month of January, 1888, representing an aggregate population of 747,800, numbered 1,307, giving an annual rate of 20.97. The total mortality from zymotic diseases, including all affections of the stomach and bowels, other than those resulting from degenerative changes, was 275, showing a rate of 4.42 per annum. Of these, 52 were due to typhoid fever, 53 to measles, 37 to small-pox, 31 to diphtheria, 25 to croup, 10 to scarlet fever, 12 to remittent fever, 7 to dysentery, 6 to cerebro-spinal fever, 5 to typho-malarial fever, and 4 each to erysipelas and cholera infantum. The total number of deaths from diseases of the respiratory organs was 417, giving a rate of 6.69. Of these, 176 occurred from consumption and 172 from pneumonia. The average annual death rate represented by the deaths occurring during the month in the ten largest cities and towns in the State, and representing a population of 547,000, was 21.74 per thousand of the population. The lowest rate was recorded in Chico and vicinity, being but 4.80; the highest is shown to have occurred in Pasadena, Los Angeles County, the rate being 43.20 per thousand. During the month of December last, it will be recollected that the annual death rate occurring from all causes, in a recorded population of 608,800, was 20.75; while for the month of January following, it will be observed that, in a population of 747,800, there is an increase of .22 per thousand. This increase, however, is so slight as to disprove the generally accepted idea that the phenomenally cold weather which prevailed during about half of the month, was attended by an unusual amount of sickness and a highly increased mortality. Indeed, a review of the past seven years, so far as statistics are available, shows the annual rate to have differed but little during the months referred to in each year, while three of them indicate a higher mortuary rate from pneumonia and other inflammatory affections of the lungs.

Small-Pox.—This disease, which a few days ago was believed to be rapidly subsiding, is again reported on the increase in San Francisco, An occasional case is also verified in other localities throughout the State. In view, therefore, of the universally accepted fact amongst intelligent med-

ical men, that in vaccination and revaccination alone rests the only preventive known, excepting complete isolation or a previous attack of small-pox, and that the operation is simple and absolutely harmless when properly performed, it should be universally adopted. The press ascribes the death of an individual at San Jose to erysipelas following vaccination. What of it? What if an hundred died from the same cause in a population of a million and a quarter? Would it not be quite as reasonable to decry travel by railroads or by steamboats, by means of which a much larger number lose their lives daily? The responsibility consequent upon the presence of small-pox in any community mainly rests upon its medical men, for they are the conservators of the public health; and in accordance with the intelligence and judgment with which they present the subject of vaccination to their patrons, so will they avail themselves of its wonderful protective influence. The writer believes also—as do the majority of those who have given the subject a full and unbiassed consideration—that humanized virus has lost none of its protective power; that it is much more active than bovine virus; that a careful and prudent medical man is much more liable to obtain pure and unadulterated virus from a healthy child, than is he who makes merchandise of that which is promiscuously collected from calves, and that, of the two, humanized virus is less likely to be followed by raspberry growths or other eruptions. Bovine virus is simply "fashionable," and it is the duty of medical men to correct the too common error regarding its safety and protective influence, as compared with humanized virus.

METEOROLOGY.

By J. W. Robertson, B. A., M. D., Assistant Physician to the State Asylum for Insane, Napa, Cal.

The Cold Wave.—During the first days of January, a cold wave swept over the whole State. While inflicting no serious damage, the succession of cool, frosty mornings apparently filled us with surprise and consternation. The great dailies gave full reports and offered many explanations of the phenomenal weather. The "oldest inhabitant" was free to assert that nothing of the kind had ever been known, and was full of gloomy forebodings of climatic changes. Such statements are injudicious, liable to be misinterpreted, as well as to give a wrongful impression to those who come to this coast solely on account of its climate. We can stand by facts, and any other course would be climatic suicide. We cannot afford to be astonished at a frosty morning, or to be unduly disturbed by a thin cake of ice and call it phenomenal. The truth is, the past January has not been "unusally severe." Our coldest weather occurs, as a rule, in January, and that it is nothing but what we have experienced in the past and can confidently expect in the future, the following table clearly proves. It is taken from the data collected by the observer at the Napa Insane Asylum.

The situation of this observatory in the modified coast belt, viz.: the country lying adjacent to the ocean, but sheltered from the warm coast breeze by low-lying foothills, makes it a fair type of California weather. The temperature of the coldest night at Eureka, in the extreme north of the State, was 20° above zero; while at Red Bluff, due east, it was 17°. At San Francisco, the coldest temperature noted was 28° and at San Diego 33°, while Los Angeles confessed to 30°. Reviewing the whole month, the mean temperature of the coast belt ranged from 44° to 51° above zero, while that of the valley belt was from 40° to 50°, the mean over the whole State being 45°. When this brief *résumé* is

thoroughly digested, and the fact is remembered that, east of the Sierra Nevada mountains, the temperature ranged from zero to 50° below, and that hundreds of persons—not to mention valuable live stock—perished, it is easily understood why we are not willing to confess unusual severity or to complain because we have a few frosty nights which did no injury.

	Max.	Min.	Mean Max.	Mean Min.	Mean for Month.	No. days thermometer registered 32 deg. F. or less.
1880	60	27	50	33	41.5	15
1881	63	32	54	43	48.5	1
1882	59	28	50	35	42.5	10
1883	57	25	47	32	38.5	17
1884*	58	30	54	32	43	9
1885	56	34	49	37	43	0
1886	58	29	49	39	44	12
1887	66	30	53	37	45	10
1888	57	23	46	34	40	14

* Records for this month extend from 9th to 21st only.

Weather Forecasts.—A new departure has been recently inaugurated by the Signal Service on this coast. Beginning with the New Year, Lieut. Maxfield has made forecasts of the weather, and for the first time a practical use has been made of the observations daily gathered and a course analogous to that long since adopted in the East is being followed. But the many and great disadvantages under which the work must be done render it infinitely more difficult. In the Eastern States, Signal Service Stations are established every few miles, and extend over an immense territory. Barometric changes and weather warnings are carefully noted. Storms usually travel from west to east, and over well-defined lines. As the storm-centre moves, its progress and every characteristic is telegraphed in advance, and a due observance of the various signals displayed and bulletins published, warns of approaching danger.

On this coast the task is far more difficult, and the problems presented are so intricate as to be not easily solved. As a rule the storms approach from the ocean, and are unheralded. They are characterized by an apparent anomaly, for while the rains usually occur in the northern parts of the State first, and gradually spread south, the storms themselves always come from the south, and are accompanied by strong west and southwest winds. Probably this is due to the fact that while storm-centres may originate in southern waters, their home is far to the north where the warm Japan current meets with the cold Arctic waters. They thus strike British Columbia and Washington Territory first, and, as they swing around in great circles, impinge on the more southern coasts. Even did the storms approach from the land, the facilities for observation are so poor that their course could not be closely watched. The appropriations for this branch of the service have been niggardly, and the only observations, save a few widely scattered Signal Service Stations, are voluntary. These voluntary observers having to furnish their own apparatus use those which are cheapest, or which are most easily obtained. Thus all uniformity is destroyed, and the data collected cannot be implicitly relied on. The stations established by the San Francisco *Chronicle* and the Southern Pacific Company make an excellent beginning, but as yet they note only the temperature and rainfall. When uniformity is once brought out of existing chaos, information more definite and reliable will be gained.

California—Tabular Statement for January, 1888.

STATIONS.	TEMPERATURE. Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	RAINFALL. No. of Days Rain Fell	Total Rainfall	Mean Relative Humidity	WEATHER. No. of Clear Days	No. of Fair Days	No. of Cloudy Days	WIND. Prevailing Direction.	FURNISHED BY—
Auburn .....Cal.	40.4	64.0	12	.....	.....	.....	.....	7.07	.....	.....	.....	.....	S.	Southern Pacific Co.
Colfax..... "	37.8	60.0	16.0	.....	.....	.....	12	13.25	.....	.....	.....	.....	S.	" " "
Eureka..... "	44.6	76.9	20.3	51.3	37.8	13.3	18	12.95	84.5	7	10	14	SE.	Signal Service U.S.A.
Fresno..... "	44.1	68.5	19.6	53.0	35.2	17.8	6	1.75	81.2	13	11	7	E.	" " "
Keeler..... "	35.3	58.0	11.8	43.7	27.0	16.8	3	.70	59.9	18	10	3	E.	" " "
Los Angeles.... "	50.0	71.0	30.9	57.9	41.5	16.4	9	6.04	80.1	14	8	9	E.	" " "
Monterey ..... "	49.7	63.0	20.0	.....	.....	.....	.....	3.95	.....	.....	.....	.....	SE.	Southern Pacific Co.
Napa..... .. "	41.5	57.0	23.0	46.6	36.5	12.1	14	4.15	.....	11	3	17	.....	Sta. Napa Ins. Asylum
Oakland..... "	45.37	61.	26.	57.33	31.33	8.39	14	6.42	87.54	11	2	18	SW. W.	J. B. Trembley, M.D.
Paso Robles.... "	41.1	67.0	16.0	....	.....	.....	9	5.60	.....	.....	.....	.....	S.	Southern Pacific Co.
Red Bluff..... "	40.9	59.5	17.5	47.4	34.0	13.4	16	4.08	69.7	9	7	15	N.	Signal Service U.S.A.
Sacramento. ... "	42.8	63.0	19.0	49.9	35.7	14.1	14	4.81	80.2	8	12	11	N. SE.	" " "
San Diego..... "	51.6	64.5	33.0	58.2	44.9	13.4	8	1.96	75.5	11	12	8	W.	" " "
San Francisco.. "	46.3	62.8	28.7	51.8	41.6	10.2	16	6.81	76.0	8	7	16	SW.	" " "
Santa Barbara.. "	49.0	66.0	28.5	58.7	41.0	15.3	8	10.15	.....	15	4	12	W.	Hugh D. Vail.
Santa Cruz..... "	49.2	62.0	24.0	.....	.....	.....	.....	8.00	.....	.....	.....	.....	S.	Southern Pacific Co.
Yuma.....A. T.	51.6	78.6	27.0	63.3	39.2	24.1	2	.18	55.7	21	9	1	N.	Signal Service U.S.A.

Blank (.....) indicates data missing.

CLEAR DAY—One on which cloudiness is 3 or less on a scale of 10. FAIR DAY—One on which cloudiness is from 3 to 7.
CLOUDY DAY—One on which cloudiness is over 7.

REVIEWS AND NOTICES.

A Sketch of the Management of Pregnancy, Parturition and the Puerperal State, Normal and Abnormal. By Paul F. Mundé, M. D. Leisure Library Series. Detroit: Geo. S. Davis.

This number of the Physician's Leisure Library series presents a brief and interesting outline of midwifery. The word abnormality, so often used by this author and by many other medical writers, is an intolerable abnormity. If its reputation were as bad as its character, it would be debarred henceforth (and forever) from respectable linguistic association. The routine use of ergot immediately after the completion of the second stage, as recommended by the author, is at least a questionable practice. The tetanic contractions produced by ergot are certainly not as favorable to involution as are the rythmical contractions normal to child-bed. Besides, ergot and friction are not altogether unknown in the etiology of hour-glass contraction and of "adherent placenta." In abortion, even in the second month, we should use the colpeurynter, if necessary, with strict antisepsis, rather than ergot. This little book reflects with fidelity the principles of modern midwifery. If carried in the obstetrical bag, it might profitably help to wile away some of the weary and anxious hours imposed by obstetrical practice.

Annual Report of J. L. Meares, M. D., Health Officer of the City and County of San Francisco, for the fiscal year ending June 30, 1887, including reports of W. F. McAllister, M. D., Quarantine Officer, W. T. Bell, M. D., Resident Physician Twenty-sixth Street Hospital, and Chas. Blach, M. D., City Physician and Police Surgeon.

During the year there were 5,359 deaths, giving an annual rate of 17.86 in an estimated population of 300,000. Of these deaths 247 were from diphtheria, 240 of the decedents being under 20 years of age. On this point the late Health Officer speaks very forcibly. He considers that the mortality is due to the disgraceful condition of the drainage system, particularly south of Market street, this portion of the city being a hot-bed of the disease. In connection with the question of sewerage and drainage, he says that "a great deal of the work now being done, must, in the near future, be thrown away. A brick sewer is frequently constructed to replace an old and decayed wooden one, but the fall being insufficient, you are frequently substituting an elongated cesspool, made of brick instead of wood." Regarding vaccination, he says: "It gives me great pleasure to reiterate my entire confidence in the absolute protective power of bovine virus against an attack of small-pox. Since its introduction, in May, 1877, there has not been a single case of varioloid after successful vaccination with bovine virus, notwithstanding thousands of exposures, particularly during the epidemic of 1876 and 1877, and that of 1880." There are few cities which enjoy the natural advantages of climate and situation possessed by San Francisco, and which render possible a perfect system of sanitation. That this has not long since been in operation, can only be ascribed to the apathy of municipal authority on these vital questions. With a good water supply, and a complete system of sewerage, under the supervision of a competent sanitary engineer, the metropolis of the State could enjoy an enviable reputation in the immunity from zymotic disease.

Report of the Surgeon-General of the Army to the Secretary of War, for the Fiscal Year ending June 30, 1887. Washington: Government Printing Office.

The report contains a large amount of valuable statistical matter relating to the health of the army, clearly arranged. The total number of

cases admitted to sick report was 26,550, with 230 deaths (giving a rate of 8.8 per 1,000), and 650 discharges. The average number constantly non-effective during the year was 836. The observations of the post surgeons on cases of sickness or epidemics occurring at their stations, are particularly valuable. The statistics of vaccination are interesting. There were 857 primary vaccinations, of which 444 were successful, or 51.8 per cent., and 6,319 re-vaccinations, with 1,465 successful results, or 23.2 per cent. Bovine virus was used in 664 primary vaccinations, with 352 successes, or 53 per cent., and in 4,447 re-vaccinations, of which 1,091, or 24.5 per cent., were successful. Humanized virus was used in 193 primary vaccinations, with 92 successes, or 47.7 per cent., and in 1,872 re-vaccinations, with 374 successes, or 20 per cent. Under the head of "Hygiene of the Army," we find the old story of official apathy and the slowness of the heads of departments to remedy very patent evils. The question of the proper clothing of the troops, with some regard to the climate in which they are serving, is most important. It appears that provision is made for troops in the colder stations, but in the warmer regions the same uniform prevails. At Fort Ringgold, Texas, the post surgeon, W. F. Carter, calls attention to the matter, and Surgeon G. P. Vollum, the Medical Director of the Department, endorses his remarks. The grievance is evidently not new, as this officer says that these complaints date back in his memory to 1853–56, when he served in that State. He says "the United States stands alone in the measure of forcing its troops to wear the same uniform during all seasons and in all latitudes." It has been found by experiment, that with an average temperature in the open air of 90.2° F., the temperature within the crown of a forage cap worn in the sun was 100.05°! The report closes with the statement that the number of medical officers permanently disabled is becoming a matter of serious embarrassment to the efficiency of the department, in view of which an increase of twenty assistant surgeons is urgently recommended.

THE NEW YORK MEDICAL JOURNAL VISITING LIST AND COMPLETE POCKET ACCOUNT BOOK. By Charles H. Shears, M.A., M.D. New York: D. Appleton & Co.

This visiting list is really, as its title describes, a complete pocket account book, and physicians who prefer to carry accounts in their visiting list will find this book to be very conveniently arranged. Each page is arranged for three accounts or a total of 375. An alphabetical index is appended, and the names can be found without trouble. The usual information accompanying visiting lists is included in a condensed form, amongst which, a table of eruptive fevers and Playfair's antiseptic rules for monthly nurses are particularly noticeable. It is strongly bound in leather, with pocket and flap.

THE MODERN TREATMENT OF DISEASES OF THE HEART. By Prof. Dujardin Beaumetz. Translated from the French edition, by E. P. Hurd, M. D. Volumes I and II. Leisure Library Series. Detroit: Geo. S. Davis, 1887.

Dr. Hurd is entitled to commendation in again introducing to the profession of this country another work by this eminent French clinician. This book is written in his usual clear, concise and didactic manner, which renders its reading a source of recreation, as well as instruction. Volume I is devoted to the treatment of valvular cardiac lesions and complications. Volume II presents a *résumé* on the treatment of aortic aneurisms. Both volumes are to be recommended, inasmuch as they furnish exhaustive monographs on comparatively new subjects.

BOOKS AND PAMPHLETS RECEIVED.

Intestinal Diseases of Children. By A. Jacobi, M. D. Physician's Leisure Library Series, No. 5, 1887. Detroit: Geo. S. Davis.

The Galvano-Cautery Sound and its Application, especially in Hypertrophy of the Prostate, with Reports of Cases. By Robert Newman, M. D. [Repriuted from the *New England Medical Monthly.*]

Anomalous Features in a Case of Ovariotomy. By O. O. Burgess, M. D., with a report by Albert Abrams, M. D., Demonstrator of Pathology, Cooper Medical College. [Reprinted from the *Pacific Medical and Surgical Journal.*]

Diseases of the Skin. By John V. Shoemaker, M. A., M. D., Professor of Skin and Venereal Diseases in the Medico-Chirurgical College and Hospital of Philadelphia, Physician to the Philadelphia Hospital for Diseases of the Skin, etc. New York: D. Appleton & Co.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At the regular meeting of the Board of Examiners, held February 1st, 1888, the following physicians were granted certificates to practise medicine and surgery in the State:

Fred. Baker, San Diego, M. Dep. Univ. of Mich., July 1,'80.
Charlotte Le Breton Johnson Baker, San Diego, M. Dep. Univ. of Mich., June 30,'81.
H. O. Brink, Brentwood, Cooper M. Coll., Cal., Nov. 17,'87.
Matilda Watson Burns, Guerniville, Cooper M. Coll., Cal., Nov. 17,'87.
Edwin Carson, San Diego, Miami M. Coll., Ohio, March 1,'83.
Francis Marion Casal, Santa Barbara, Rush M. Coll., Ill., Jan, 27,'64.
Frederick Payson Cave, El Monte, Univ. of the City of N. Y., Mar. 12,'83.
Joe D. Davidson, Fresno, Vanderbilt Univ., Tenn., March 1,'82.
Orville S. Ensign, Ontario, Univ. of Michigan, Mich., July 1,'80.
Elizabeth Gallimore, San Jose, Cooper M. Coll., Cal., Nov. 17,'87.
Edward V. Jarrett, Fowler, Atlanta M. Coll., Georgia, March 4,'74.
Emma Caroline Lafontain, S. Francisco, Cooper M. Coll., Cal., Nov. 17,'87.
James Lang, Pasadena, Bellevue Hosp. Coll., New York, March 1,'79.
Elbert Nelson Mathis, Los Angeles, Rush M. Coll., Ill., Feb. 19,'84.
Asa P. Meylert, S. Francisco, Univ. City of New York, N. Y., July 2,'56.
Wm. Abram Norman, Plymouth, Cooper M. Coll., Cal., Nov. 17,'87.
Albert Edward Phelan, San Bernardino, Univ. Bishop's Coll., Canada, March 31.'87; Coll. of Phys. and Surg., Province of Quebec, Canada, May 11,'87.
William E. Reardon, S. Francisco, M. Dep. Univ. of Cal., Nov. 15,'87.
David Wm. Reid, Monrovia, St. Louis M. Coll., Mo., March 3,'68.
Tullio Antonio Rotanzi, S. Francisoc, Cooper M. Coll., Cal., Nov. 17,'87.
Hamson Edward Stroud, S. Francisco, M. Dep. Colorado State University, June 3,'85.
George Morton Terrill, S. Francisco, Univ. of Pennsylvania, April 13,'83.
Wesley Thompson, San Bernardino, Miami M. Coll., Ohio, March 2,'67.
Henry Utley, Pasadena, Univ. of New York, N. Y., July 3,'48.
M. Ella Whipple, Long Beach, M. Dep. Willamette Univ., Or., Mar. 26'83.
J. W. Wood, Long Beach, Coll. of Phys. and Surg., Chicago, Mar. 13,'83.
Elizabeth Mildred Yates, S. Francisco, Cooper M. Coll., Cal. Nov. 17,'87.

The application of Julius Utschek, of San Diego, was refused, owing to insufficient credentials.

WM. M. LAWLOR, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from Jan. 20th, 1888 to Feb. 20th, 1888.

Leave of absence for one month, on surgeon's certificate of disability, is granted Assistant Surgeon Walter W. R. Fisher. S. O. 4, Div. Pacific, Jan. 20, 1888.

Assistant Surgeon H. I. Raymond, ordered to Fort Bidwell, Cal. Assistant Surgeon W. W. Fisher ordered to Presidio of San Francisco, Cal. S. O. 25. A. G. O., Jan. 31, 1888.

Major John H. Janeway, Surgeon, Captain Wm. E. Hopkins, Assistant Surgeon, detailed as members of the Army Retiring Board, in San Francisco, Cal., convened by S. O. 168, A. G. O, July 22, 1886. S. O. 28. A. G. O., Feb. 4, 1888.

Major John H. Janeway, Surgeon, to return to his station, Benicia Barracks, Cal. S. O. 5, Div. Pacific, Feb. 17, 1888.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (District of the Pacific), from Jan. 20th, 1888, to Feb. 20th, 1888.

Assistant Surgeon P. M. Carrington, promoted to Passed Assistant Surgeon, from Jan. 20, 1888.

ITEMS.

Our Correspondence.—Owing to delayed mails the regular correspondence for this issue arrived too late for insertion.

A Board of Health for San Diego.—This progressive city has recently spent a large sum of money on extensive sewerage works, and will soon have an abundant supply of pure water. A Board of Health, consisting of the following physicians, has been appointed: T. C. Stockton, President; L. Dexter Lyford, W. M. Smart, R. Eichler, and P. L. Magee, Secretary. This is the first Board of Health at San Diego. Dr. D. B. Northrup, is the Health officer.

A Busy Practitioner.—Under this caption an item is going the rounds in which a New England physician mentions that he had, besides other work, visited thirty-five patients, and attended three obstetric cases in twenty-four hours. That was certainly a fair day's work, but Sacramento can beat the record. A practitioner in this city once made one hundred visits in one day, and has four times attended four confinements in the twenty-four hours. On one occasion three of the cases were in town and one four miles in the country. This was done in addition to other business.

Bicarbonate of Soda in Milk.—The sanitary authority of the Seine has decided that the addition of bicarbonate of soda to milk for the purpose of preserving it should not be authorized or tolerated. This was formerly permitted, but the increased facilities of transport and the method of preservation, such as cold, which are harmless, render the addition of extraneous matter unnecessary. Under certain conditions this adulteration is not without danger. When the transformation of milk sugar into lactic acid has occurred, the addition of bicarbonate of soda forms a lactate of soda which is purgative, and is therefore a cause of diarrhea in young children.

THE MEDICAL TIMES will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers; of course not necessarily for publication.

All communications relating to this journal should be addressed to 429½ J street, Sacramento, Cal.

Sacramento Medical Times.

VOL. II. APRIL, 1888. No. 4.

A CLINICAL LECTURE,

Delivered at the College of Physicians and Surgeons, New York,

By FESSENDEN NOTT OTIS, M. D.,

Professor of Diseases of the Genito-Urinary System in the College of Physicians and Surgeons, New York.

Retention of Urine from Prostatic Enlargement.

Last week, gentlemen, we were engaged at the close of the lecture in a very interesting operation—that of relieving a young man from retention of urine—and I suggested then that there were various causes producing that condition. The question arose in connection with our considerations on the consequences of gonorrhea. Having indicated the manner in which gonorrhea was followed by various accidents, we were particularly concerned with that most important of all accidents of gonorrheal inflammation of the urethra, namely, the deposit of plastic material, which finally condenses into cicatricial material and contracts the canal at various points. We followed this contraction down to the point at which retention of urine resulted. This opened the question of retention of urine and several varieties were spoken of—among others was that resulting from prostatic trouble. By means of a diagram on the blackboard, it was shown how the retention in such cases was occasioned. You will remember that, at that time, I exhibited to you a variety of instruments for the relief of retention, and demonstrated what anatomical points there were to avoid in their introduction—points which might prove embarrassing to the surgeon, not only in retention due to stricture, but also in retention due to the enlargement of the prostate gland, which is so often seen in elderly people. It has occurred to me to continue that branch of our subject to-day, for retention of urine, due to prostatic enlargement in elderly people, occurs so frequently, in comparison to the other varieties of retention, as to suggest that ability to relieve it shall be among your earliest acquirements in matters genito-urinary. It is true this is not in direct line with the subject of stricture which we started out upon; yet, because of its close connection, and not rarely its complication therewith, and the fact that there is with us to-day a man suffering from prostatic enlargement, I thought we would be fully justified in this digression. Again, I say, that there is difficulty of urination late in life in a very considerable proportion of men. This fact is popularly recognized; people generally understand that old men are a long time in urinating. The proportion of old men who have difficulty in urination, has

been estimated by authorities to be one in fifteen or twenty. The difficulty in urination is not sufficient in all these cases to lead the patient to consult the physician, but it is sufficient to indicate a greater or less degree of prostatic enlargement. It is only in about one in three of this number that instrumental interference is called for.

As a consequence of so many suffering in this way, we are likely at any time to be called to relieve them. The first symptom of prostatic enlargement often consists simply of a little increased frequency of micturition. At any rate, this symptom, more frequently than anything else, first attracts the attention of the patient. He is, perhaps, obliged to rise two or three times at night to urinate, which he was not previously accustomed to do; except in that respect he may have very little difficulty. This symptom continuing for some time, possibly a year or two, he suddenly finds himself unable to urinate voluntarily. He has an attack of retention of urine, and he then calls in a physician, who, if accustomed to seeing cases of this kind, will at once suspect from the patient's age that he has prostatic enlargement. Of course there will be the question of stricture to consider, for a man of that age is not unlikely to have stricture; but the first thing to settle in such a case will be as to the condition of the prostate. To determine this question, the physician will at once proceed to make an examination through the rectum.

Our patient tells us he is about 67 years of age. He says that he has had difficulty in making water off and on for seven or eight years. We may begin to look for prostatic trouble when the patient has attained about his fiftieth year. I think that Sir Henry Thompson, who has had great experience in this matter, speaks of not having seen a case of senile prostatic enlargement under the fiftieth year. The fifty-fifth year is about the earliest period at which we find the prostatic difficulty well under way. Of course the enlargement must begin earlier than this, in order at this time to have become of any considerable moment.

Our patient assures us that he has never had a gonorrhea. He further states that seven or eight years ago he began to urinate more frequently than usual. He had to get up several times during the night. This went on for some time; until one day, on attempting to urinate, he was wholly unable to do so. He had been drinking more beer than usual—and beer of the worst kind. Here, then, we have the reason for his difficulty. The bad beer rendered his urine irritating, and the prostatic portion of the urethra, being already unduly sensitive through being intruded upon by the enlarged prostate, was farther irritated by this acid urine, which gave rise to reflex spasm, or swelling of the mucous membrane, or both combined, sufficient to wholly prevent the passage of the urine. A physician was called, who drew off his urine with a catheter, and for some years afterward he states that he had no further urinary trouble.

While not quite in line with a systematic study of the subject, this remark of the patient, that he sent immediately for the doctor and obtained relief, suggests a matter of very great importance, namely, the early recognition and the early relief of retention of urine. I am speaking of retention of urine in general, but more especially of retention in elderly people, due to prostatic enlargement; for retention of a few hours

may so damage the muscular structure of the bladder as to completely destroy for a time the power to voluntarily empty this viscus. I have seen this difficulty, when it has lasted only five or six hours, followed by atony of the bladder, which made voluntary micturition impossible for a number of weeks. I recall this moment the case of a very highly respected gentleman, who, having drank a little too much wine one night, forgot to urinate before going to bed. The next morning the young man found himself incapable of urinating. I saw him two years afterward. During this entire period he had not passed a drop of urine voluntarily. Temporary atony of the bladder usually results from even a slight retention of urine—a prolonged retention not unfrequently, especially in elderly persons, necessitates the use of the catheter for the remainder of the patient's lifetime.

But to resume the consideration of the case before us: This man had retention of urine, which lasted only a few hours. It is probable, therefore, that there was an accumulation of only a pint or two. The quantity may depend upon the size of the bladder, for bladders vary very much in size. A pint in one case means as much as two quarts in another; it distends the bladder with equal force, and this accounts for the fact that a person with a small amount of accumulation may suffer a great deal of pain and discomfort. But this patient received relief so soon, that it is probable there was not a great amount of accumulation or overstrain. Now let us suppose you have been called to a case of retention of urine in an aged patient, as in the case before us. You pass your finger into the rectum and determine that the retention is probably due to prostatic enlargement. Let us go further and suppose, after the use of hot sitz baths, and tincture of iron internally, etc., you are unable to give him relief except by passing the catheter. You select a suitable instrument, one with the proper curve, and succeed in introducing it. Now arises a very important point. It is that this bladder should be emptied with great care, especially so if the retention has existed for a considerable time, say 12 or 24 hours—and sometimes the urine is retained 36 hours before the doctor sees the patient. There is a large accumulation—three or four pints. Dullness on percussion extends up to or even above the umbilicus. Now, if we drew all the urine off at once, we might have some such result as you are acquainted with in cases of rapid withdrawal of a large amount of fluid; in a case of ascites syncope may occur—such a syncope as has at times proved fatal. But in almost any bladder in which an accumulation of urine has taken place equal to two or three pints, immediate withdrawal of the whole of it is very apt indeed to be followed by cystitis. Another point of great importance is the possibility of a form of urethral fever occurring from the simple introduction of a catheter, for the first time, into a person suffering from an enlargement of the prostate. Medical literature abounds in examples of individuals who, after the first catheterization, have had a form of urethral fever, which went on to a fatal termination; cases in which the catheter may have been introduced in the most scientific and most careful manner, yet a slow fever set in, the temperature, perhaps, not running above 102° or 103° F., but continuing as the patient's state grew lower and lower, his

tongue becoming dry, the powers of life failing, and finally, at the end of two or three weeks, the end came. The possibility of this accident happening must always be borne in mind when patients come to your office with retention of urine, who are not accustomed to instrumentation, and you will therefore have to exercise great care in withdrawing their urine. It were better, if possible, to have the man first go home and to bed, and there premise the introduction of an instrument by the introduction of a suppository of quinine and morphine; prevent him from taking any exercise for at least 24 or 48 hours after introduction of the instrument.

I have seen cases in which relief to a moderate retention was given at once; without proper precautions, urethral fever of grave character resulted 24 and even 48 hours after. If these cases were so very rare, showing that the occurrence of the accident was extremely improbable, I should not dwell so long upon this subject. But they are not rare. Indeed, a very considerable proportion of men who begin the introduction of the catheter, on account of prostatic enlargement, without proper care, suffer from more or less grave urethral fever. There are cases, of course, in which, from the necessities of the case, immediate relief is required. This may occur over and over again, no difficulty following; but the fact should ever be borne in mind, that in passing instruments through the urethra, for any purpose, a certain degree of fever sometimes results. We find it after dilatation for stricture; we find it after the passage of any instrument for the relief of urinary retention; we find it after instruments have been introduced in operations upon the bladder for removal of stone. In short, any form of urethral interference may result in a urethral fever, which is, in many respects, like that of malaria. When the temperature rises after the catheterization or other urethral operation and does not soon fall, you may be pretty sure more serious trouble will follow—that a complication has been added to the original difficulty. When these complications arise in old men, it is likely there will be found difficulty with the kidneys; usually a chronic pyelitis. Pale urine, of low specific gravity, should put you always on your guard, as indicating liability to urethral fever.

This patient tells us that it was some time before he had a second retention of urine, and that he was taught to draw his own urine. This suggests another point, of so great importance that I will dwell upon it a moment, namely, the necessity, when you are called to relieve a case of retention of urine due to prostatic enlargement, of teaching the patient immediately how to withdraw his own water. You should not draw the man's water once and then leave him to take care of himself. That will not do at all. You should look after him—feel that his case is resting on your conscience, until he is able himself to draw his own urine by means of the catheter.

Being called to a case of retention of urine, you first draw, say a pint, if the accumulation is large, and thus render the patient comfortable; after a little while you draw some more, and in five or six hours you complete the evacuation of the bladder. It is necessary to proceed cautiously in these cases, for the reasons already mentioned. If the urine shows signs of decomposition, it will become desirable to employ antisepsis, and

you may inject into the bladder a saturated solution of boracic acid, equal in amount, perhaps, to one-third of the urine drawn. Spend, if possible, three, four, five, or six days in gradually emptying the bladder; it may result in saving the patient an attack of cystitis, and even from death. During this time you can teach him how to use the catheter upon himself.

Another incident occurs to me at this time. One of the most prominent merchants of New York had some frequency of urination. His wife had called attention to it several times, feeling that something ought to be done and that he should call a physician. He said no. A year or two afterward he started off on a salmon fishing excursion, with his son, up the St. Lawrence. As he began to suffer from increased frequency of urination, his son begged him to go to Quebec and consult a physician. He said no; he knew exactly what was the matter with him, as he had had it so long; he had a little attack of piles, and always when these came on he had some more difficulty with urination; when that should pass off he would feel better; it had nothing to do with the water works; it was just the piles. So he went on, and deliberately put three days between himself and any medical aid. Retention of urine supervened, three or four days of intense suffering followed, and at the end of that time his urine began to pass involuntarily. Such is the usual history of cases of unrelieved retention. If they do not receive suitable aid, the urine, after a while, will make such pressure upon the neck of the bladder as to force it open, and then it dribbles away. Before this man got back to Quebec he found relief in this way, and thought that his difficulty was over; but his relief had come from involuntary passage of the water from incompetency, and not from a return of voluntary power of micturition. The result was that the patient passed into a form of low fever and died before he reached Quebec. On the return of his body to New York, I was called upon, as one of those making the *post-mortem* examination, to examine his genito urinary apparatus, as that was known to have been affected during life. I found enlargement of the prostate and more or less hemorrhoidal trouble, such as thousands of old men have, who obtain relief by the use of the catheter and die at a good old age. Examination of the other organs showed that they were uncommonly sound, and had the patient acquired the skill, a skill of low grade, to introduce a gum catheter and relieve himself of his urinary retention, he might have lived 25 or 30 years longer. This case illustrates the duty of every physician to impress upon the patient who has enlargement of the prostate, his constant danger. A man who has an enlarged prostate, no matter how little may have been the trouble it has yet occasioned him, should always travel with a catheter in his hat. He should never be without it, for the reason, as in the case just stated, that he is liable to be attacked at any time with sudden retention of urine.

In making rectal examination for prostatic enlargement, I regard the plan which I have been accustomed to follow and teach as better than that commonly practised. The ordinary way is to allow the patient to lie down upon his back, the physician standing at the right or left side, according as he is right or left-handed. In that position there is always

some opposition to the introduction of the finger into the rectum by contraction of the sphincter, and the difficulty is increased if the patient is fat. There is some discomfort, and the patient will attempt to approximate his legs and thus interfere with the examination. But in the position practised at this Clinic, the patient bends over the back of a chair or lounge, the physician occupies a chair behind him, and, after oiling his finger and instructing the patient to bear down as if having a passage, the sphincter will be passed with scarcely any resistance. In this case, my finger on entering detects at once considerable enlargement of the prostate. This readily explains the patient's difficulty with urination.

I have here a *post-mortem* specimen, which well illustrates the fact that a man may have retention of urine from prostatic trouble, and yet the gland, as a whole, be of only average size. You will see on the floor of the prostatic portion of the urethra in this specimen a little enlargement of the so-called third lobe of the prostate. This hypertrophy of the connective tissue between the two lobes acts as a valve, so that when the patient attempts to urinate and presses the bladder down for this purpose, it tends to cut off, to close the internal orifice of the urethra, and retention is the consequence. You will further observe here, that the lateral lobes, constituting the body of the prostate, are but slightly, if at all, enlarged. I mention this fact, because when we are called to a patient in whom sudden retention has occurred, and we examine the prostate and find no apparent enlargement, it may be remembered that this form of obstruction, viz., hypertrophy of the prostate *within* the bladder, may still exist.

The subject of catheterization of the bladder, and the different forms of catheter in use for this purpose, together with directions for the general management of such cases, will be considered on a subsequent occasion.

RE-AMPUTATION OF LEFT THIGH FOR CONOIDAL STUMP. PRIMARY AMPUTATION PERFORMED BY MATE AT SEA.

By Henry W. Sawtelle, M. D.,
Surgeon U. S. Marine Hospital Service, San Francisco, Cal.

Seaman Edward Kelly, a man of medium stature, aged 38 years, nativity Ireland, was admitted to the U. S. Marine Hospital, San Francisco, Cal., June 26, 1886; has served as a sailor 28 years, and always enjoyed vigorous health. He relates that on or about the first of March, 1886, while on a voyage from Cardiff, Wales, to Acapulco, on the American ship *Reaper*, he fell from the topsail yard into the sea, a distance of about 75 feet. A heavy storm had been prevailing for four or five days and the sea was running high. He was swept alongside of the ship and caught a small rope, by means of which he managed to get his left leg into one of the channel plates of the main rigging. The vessel was rolling heavily, and had he been unable to maintain himself at this

point, the next wave would have carried him away. While in this position the limb was violently twisted, causing a double simple fracture of the bones of the leg, one at the ankle joint, the other at a point about 7 cm. below the patella. A few moments later he was rescued by the officers of the ship and removed to the forecastle, where he was relieved as much as possible by the captain. The upper injury was not discovered, and accordingly dressings were only applied to the fracture at the lower point.

The splints, which were evidently applied too snug, were not taken off until May 1st, or until a dark discoloration of the foot appeared, indicating the approach or existence of gangrene. Upon examination it was found that the discoloration had extended up the leg to about its middle third, and a few hours after the removal of the dressings, the soft parts of the outer side of the foot sloughed off. The captain now decided to amputate at the lower third of the thigh at once, and having obtained consent of the patient, he was prepared for the ordeal by administering several small glasses of ether, freely diluted, and adjusting a "Spanish windlass," to prevent hemorrhage. The captain at this stage became too nervous to proceed, and was obliged to withdraw. The second mate then assumed charge of the case, and performed the operation with a sailor's sheath knife, by making a circular incision just above the knee-joint, severing the structures directly down to the bone. The femur was sawn off by a tenon-saw on the same plane with the soft tissues, thus leaving the end of the bone exposed, no flaps having been made. The anesthetic given, he says, caused a sort of intoxication and partially relieved the pain, but he was not unconscious at any time during the operation. He sat up and witnessed the entire proceeding, declining to allow his shipmates to blindfold him. In sawing through the medullary canal, he says that the pain was particularly severe and not unlike a shock from an electric battery. Silk ligatures were applied to the vessels; there was but little loss of blood. The stump was washed with carbolized water and, after pouring carbolized oil over it, a roller bandage was applied and the patient placed in bed. Up to the date of amputation he had been cared for in the forecastle and had suffered from the hygienic defects of his environment, but after the operation he was transferred to more suitable quarters in the captain's cabin, where he stayed during the remainder of the voyage.

The gradual retraction of the muscles after amputation left the bone more and more exposed, and three weeks subsequently about

3 cm. projected, which was again sawn off close to the muscular tissues. This operation was performed without the use of anesthetics, but he states that he suffered no pain from it. In a few hours afterwards a chill supervened, lasting two hours, followed by a fever, which continued several days.

The ship arrived at Acapulco about the 8th of June, at which date the patient was in an exhausted condition; discharge from stump free and offensive. Two physicians were called on board for advice, who, after examination, recommended re-amputation; but the patient declined to have the operation performed at that time, and his request to be sent to this hospital by steamer was granted. During the passage the surgeon of the steamship dressed the stump and made him comfortable.

Upon admission he was in a depraved state of health; skin pale and sallow; body considerably emaciated; complained of a constant and deep-seated pain in stump, and stated that he had suffered from muscular twitching, more or less constantly since the limb was amputated, the pain being more severe at night. The stump was conoidal in shape, the parts gradually enlarging from below upwards to the edge of the integument, which was firmly bound to the circumference of the limb by a band of cicatricial tissue, varying in width from 1 to 3 cm. It presented an unhealthy granulating surface over the end of the bone, from which there was a slight discharge. A shell of bone, about 2 cm. in length, was exposed, and denuded of periosteum with the medulla, which was of a grayish color, projecting slightly beyond. The constitutional condition of the patient contraindicated immediate surgical interference, and hence supporting treatment was ordered. Meanwhile extension was kept up by means of the weight and pulley as suggested by Prof. Warren—(*vide* Gross, vol. i, p. 526), which greatly relieved the pain and muscular twitching. Indeed, he was unable to sleep without the use of the extension apparatus.

July 8th, a shell of bone, 5 cm. by about 1 cm., together with several spiculæ, became loose and were removed.

August 2, 1886, physical condition generally improved, although the deep-seated pain in the stump has been for the past few days quite severe. The patient being in a suitable condition to undergo an operation, it was decided to expose the parts with a view of excising the diseased portion of bone with a chain-saw. He was, therefore, placed under the influence of ether, Esmarch's bandage applied, and an incision was made on the anterior aspect, 10 cm. in length, down to the bone, extending downward to the distal

extremity, and the tissues carefully dissected from the shaft. This examination, however, revealed the fact that the periosteum on the outer side of the femur was dark and partially detached for nearly 7 cm. from the extremity, and although the disease had not progressed so destructively on the inner aspect, it had extended about 3 cm. higher up. The inflammatory process succeeding the sawing off of the protruding extremity resulted in proliferative expansion of the bone, which became somewhat softened and porous, presenting the appearance of honeycomb, as shown in the accompanying engraving.

The idea of excision was now abandoned, and I re-amputated the limb at the middle third by the lateral-flap method, aided by Assistant Surgeon T. B. Perry, Marine Hospital Service. The arteries were secured with silk ligatures. As an additional precaution the femoral vein was also ligated. The flaps were brought together with silk sutures; the patient experienced but little shock: re-acted nicely. There was no hemorrhage, beyond a slight oozing, which continued so, that, a few hours after the operation, the flaps were opened, the clots removed, and hot water applications were applied to the stump, after which all hemorrhage ceased.

August 3d: Chill at 5 A. M. Temperature, 8 A. M., 37.3° C.; temperature, P. M., 38.3° C.

August 8th: Since last note temperature has varied from 37.3° C. to 39° C., with gradual improvement. Patient states that the limb feels much better than before the operation. The flaps united by first intention, except at the lower angle, where a drainage tube was inserted.

August 12th: Temperature normal; sutures and two ligatures removed; small discharge of laudable pus.

August 18th: Last of ligatures came away to-day. With the exception of a chill, fever and nausea, which continued two or three days, the general condition of the patient steadily improved after the amputation.

September 8th: Small abscess formed on outer aspect of flap, which was opened and drained at the lower angle through a drainage tube.

September 12th: Abscess and stump entirely healed, leaving a

slight puckering of the part at the posterior angle. He suffered but little from spasm of the muscles after the last operation. The patient has recovered his usual weight and is now cheerful. The stump is well formed and he has been furnished with an artificial limb. A gentleman of this city, who recently visited the hospital, generously offered him employment, and he was discharged November 29, 1886, to enter upon his new duties.

November 13, 1887. NOTE: This man walked to the hospital to-day, a distance of 1½ miles, on his wooden peg. He stated that he had worked constantly since his discharge from hospital, without experiencing pain or other trouble from the limb. On examination the stump was found to be firm and healthy. The novel methods adopted by the mate in amputating the limb on shipboard at sea, and the remarkable power of endurance exhibited by the sailor, form the chief features of interest in the case.

EFFECTIVE VACCINATION.

By G. F. G. MORGAN, M. D., San Francisco, Cal.

The relations which vaccination and revaccination hold to preventive medicine, must seem remote to even medical minds, as some prominent members of the healing art fail to accord to this beneficent measure a just place in their system and practice. The late Dr. Terrill, of this city, painfully and lamentably illustrates this fact; and we cannot doubt that there are other members of our profession who view the subject altogether too lightly, when the influence for good or evil, which medical men exercise over their less instructed fellow-citizens, is duly considered.

On this subject the following quotation from Meigs & Pepper's able work on the "Diseases of Children," (p. 756) will not be out of place: "Though vaccination in infancy has not proved a sovereign protection against small-pox * * *; when properly used, the security it does afford is so nearly perfect that the thought of its benevolent power ought to rouse every feeling of thankfulness of which the human heart is capable * * *. Some persons have begun to question the real value of vaccination. Such persons always seemed to us the most crotchety and foolish of mankind. We have never seen life lost or the face disfigured, during forty years of experience, in any one who had been well vaccinated in infancy and then successfully revaccinated at puberty."

It seems strange, at so late a day in the history of this most excellent preventive measure, that there should be so much prejudice

against vaccination and revaccination; and that even men of intelligence, in other walks of life, should array themselves against our Boards of Health and hinder and embarrass these officials in their laudable efforts for the prevention of disease, the conservation of health and commercial prosperity. To the watchfulness, activity and persistent effort in these measures by the Board of Health, in face of public opinion and school-official prejudice, the citizens of San Francisco owe the limitation placed upon the epidemic of small-pox which has recently visited this city and threatened the lives and the commercial prosperity of its people.

What constitutes effective vaccination? is a question that has frequently recurred during the late epidemic. Sometimes the question is the outcome of an honest desire for more accurate knowledge. Sometimes it is the exponent of a desire to escape the duties of vaccination or revaccination. A review of the subject involved in this question—by authorities and experience—clearly shows that while there is an invariable standard for successful (or effective) vaccination, there also exist measures of success not so easily nor so palpably demonstrated. The pit-mark which follows a typical or non-typical course of vaccination is an unerring evidence of thorough constitutional work done by the vaccine virus upon the individual. This standard is visible, palpable and persistent; often remaining from infancy through life. There is another type of evidence upon which effective vaccination is freqently predicated. This is found in the inflammation and pain in arm and axilla, fever, general systemic disturbance, involvement of the axillary glands and areola around the vaccine wound. Generally the scabs of operations running this course are not depressed, but rise to a head; and when the period of final unscabbing arrives, the arm appears a little red where the wound was made, but is smooth and without visible evidence of the operation. Of course this redness soon passes away and then nothing remains by which a physician can state that vaccination has been performed upon the individual. We must grant that where such symptoms have existed, there has been constitutional action; but if the vaccination has been primary, it would not be wise nor safe to rely upon such an operation for protection from small-pox. Moreover, this evidence is subjective, leaves no definite traces and might mislead. We are thus brought back to the visible standard—the pit-mark. I may state that out of about 1,300 public and private vaccinations lately performed by me, I met with 45 cases, some of which agreed in all particulars with the foregoing description; and that further

and final examination showed them to be scarless. In most of these cases, the onset of the vaccine attack did not take place before 10 to 14 days after vaccination. In one case, a man came to me in great concern about his arm. It was swelling, inflamed and painful. The axillary glands were involved. He did not know what was the matter with him. I elicited the fact that I had vaccinated him just four weeks previously. I told him it was the vaccine matter "working in his system." I have not since seen him.

Effective vaccination necessarily involves revaccination. On this subject it may be instructive to note the statement of Dr. Seaton, as quoted by Meigs & Pepper (*op. cit.* p. 765): "In the army of Wurtemburg, during five years, there occurred, among 14,384 revaccinated soldiers, only one case of varioloid; and in civil practice, in 30,000 revaccinated persons, during these years, only two cases of varioloid—though, during these years, small-pox had existed in 344 localities and had produced 1,674 cases of modified and unmodified small-pox among those not revaccinated and, in part, unvaccinated population of 363,298 persons in those places in which it had prevailed." Before the introduction of revaccination into the Prussian army, the annual death rate from small-pox was 104. Since the introduction of systematic revaccination, the deaths from this disease have not averaged more than two per annum. On an analysis of 40 deaths from small-pox in the Prussian army in 20 years, it appeared that only four were in persons said to have been successfully vaccinated. For 30 years no nurse or servant at the London Small-pox Hospital has taken the disease, they always being carefully vaccinated and revaccinated; and of the many persons employed for months about the hospital as workmen, only two were attacked, and they were among the few not revaccinated. "In May, 1883 (*Medical Record*), owing to the clamor of the anti-vaccinationists, the authorities of Zurich abolished compulsory vaccination. For the 27 months prior to this time, there had been but 7 deaths per 1000 from small-pox. In 1884 there were 11 deaths per 1000; in 1885 there were 72 per 1000, and in the first three months in 1886 for every 1000 deaths from general causes, there were 85 deaths from small-pox." The value of revaccination is amply proved by these facts.

When shall revaccination take place? We find this question well answered (*op. cit.* p. 757): "At the age of 15, or as soon after as possible, all young persons ought to be revaccinated. There should be no waiting for an epidemic or for direct exposure to infection. The operation ought to be performed as regularly as

primary vaccination." So thoroughly have the authors been convinced of the necessity for and benefits of revaccination, that they express themselves (p. 757): "Hereafter we shall advocate revaccination in all cases, no matter how perfect the first vaccination may be stated to have been or how perfect the cicatrix or cicatrices."

A more difficult question to answer is: How often during life shall effective revaccination be performed? Some authors hold that one good primary vaccination, followed by one good revaccination after puberty, quite meets the necessity of the case, and that successive revaccinations are worse than useless. Dr. Seaton (*op. cit.* p. 764) says: "We cannot draw from the local phenomena of revaccination any inferences whatever as to the state in which the revaccinated persons were, as to liability to small-pox. * *. Jenner showed that the natural cow-pox might be induced again and again in persons who, being protected against variola by their first attack of cow-pox, could not be variolated either by inoculation or by exposure, as well as that cow-pox might be made to take on those who had had small-pox." While this supports the view that one good revaccination would suffice for the time being, the very element of uncertainty proven by the statement of Jenner himself, raises a doubt as to the period over which this protection would remain active and real; for if we cannot draw any conclusions as to the condition of exposedness or non-exposedness to small-pox from the phenomena of revaccination, the only test left is that of an attack of small-pox; and while the percentage of deaths from this disease has been shown to be so low, in the case of revaccinated persons, we may well infer that a periodical revaccination would result in a yet lower death rate. At all events, it would be in the line of prudence to perform this operation thoroughly, say once in 10 years. In this connection, it would be well if the State were to pass a law making vaccination and revaccination compulsory; requiring the first to be done at a certain age of the infant (say six months), and the latter every ten years thereafter, up to the age of 50 or 60 years, a record of such vaccinations and revaccinations to be filed for reference at the office of the respective Boards of Health.

The impossibility of affirming immunity from small-pox, because a revaccination has been effective and run the typical course, illustrates the fallacy of another conclusion often arrived at, viz.: because a vaccination or revaccination, or repeated revaccinations, fail to take; therefore, the individual so operated on, is proof against vaccinia and small-pox. This does not prove anything

more or less than that the virus used did not take; and if the vaccinator perseveres and uses different and new virus, he will one day succeed. In this way Meigs & Pepper produced a typical course of vaccinia upon an infant, after the seventh consecutive operation.

What shall be the standard of effective revaccination? On this point Meigs & Pepper say (*op. cit.* p. 764): "Revaccination at puberty rarely produces a vaccine disease of typical character. Still more is this true of children under puberty." In case of failure to produce the typical phenomena of papule, vesicle, scabbing, unscabbing and normal pit-mark, and after successive and faithful trials, we are thrown back upon the constitutional phenomena of inflammation, pain in arm, axillary involvement, fever aud general systemic disturbance; these will probably be the only evidences furnished that the revaccination has done its duty in non-typical cases. There is no doubt that the standard to be attained, if possible, in this as well as the former case, should be that of the pit-mark.

With reference to the general question of vaccination and revaccination, it should be our policy to advise those whom we may influence to cheerfully submit themselves to all preventive and hygienic measures ordained by authority for the public weal, and in thus doing we shall not be open to the charge laid at the door of one of our members, who so lately forfeited his life—that we gave false and dangerous counsel, exposing others as well as ourselves to disease and death.

Union and Laguna streets.

CLINICAL ILLUSTRATIONS OF THE VALUE OF PESSARIES.

By WALLACE A. BRIGGS, M. D., Sacramento, Cal.

Read before the Sacramento Society for Medical Improvement.

Too often the patient suffers while doctors dispute, and nowhere in the vast domain of medicine is this more conspicuous than in uterine pathology and therapeutics. Discision of the cervix in one decade has been followed by Emmet's operation in the next, and by the light of recent experience the latter is likely, in the near future, to fall into comparative, if not absolue desuetude. Procedures that do not survive the decade of their laborious birth bear witness no less to the unsettled condition of our art than to the wonderful resilience of professional hope.

Pessaries, although no longer novelties, are still, in turn, extolled by partisan and condemned by adversary. Naturally enough our distracted patients too often choose with Hamlet to bear the ills they have, rather than fly to others they know not of. The question of pessaries, indeed, has been more than doubly vexed, for their proper use presupposes not only a knowledge of their indications and contraindications and of the mechanical principles underlying their action, but also a mechanical skill that many have not the patience, and still more have not the opportunity to acquire. Besides all this, although strictly a surgical procedure, the application of a pessary, unlike surgical procedures in general, is not made once for all, but on the contrary, must be repeated from time to time and adapted to constantly varying conditions.

Pessaries must always be regarded as foreign bodies and their irritating qualities reduced to a minimum. This is to be accomplished—(1) By using thick, polished, non-absorbent pessaries. A rough absorbent surface not only irritates mechanically but also furnishes conditions extremely favorable to decomposition and consequent chemical irritation and even septic infection. A pessary with thin bars is much more likely to abrade and perforate the vaginal walls and to interfere with the pelvic circulation than one with thick bars. (2) By educating the vaginal mucous membrane and the neighboring tissues to a tolerance of the pressure, friction, and other causes of irritation consequent on the use of pessaries. This may be done by the use of either antiseptic cotton or antiseptic lamb's wool support. Either of these materials, indeed, but especially the latter, on account of its elasticity, makes an admirable pessary. Previous to packing, astringents, either in powder or in solution, may be applied to the vagina for the purpose of "hardening" it. Some prefer the use of elastic pessaries to test the tolerance of the pelvic tissues. I have not found them altogether free from objection, however, and ordinarily prefer the antiseptic packing. (3) By accurate adjustment. By no means should the instrument be too large, otherwise the vagina will be unduly distended, irritated, inflamed, eroded, perhaps perforated, and the functions of neighboring organs seriously interfered with. Accurate adjustment relates to form as well as to size. Sharp angles should be regarded with suspicion, if not altogether discarded. One should never attempt to accomplish too much with the first pessary. (4) By occasional, sometimes frequent, removal of the pessary. In this way we obviate the evil effects of continuous pressure. In properly selected cases, therefore, to instruct the patient to remove

the pessary every third or fourth night on going to bed, and to introduce it again in the morning before arising. In the interval, position may be relied upon to keep the uterus in place. (5) By thorough cleanliness, as secured by daily cleansing and occasional antiseptic irrigation of the vagina.

Not only must pessaries be regarded as foreign bodies, but their contraindications also must be kept well in view. To their neglect must be ascribed much of the prevailing doubt as to the value of pessaries. Among these contraindications may be mentioned fixation of the displaced uterus; either acute, subacute, or some forms of chronic inflammatory affections both of the uterus and of the uterine annexes. Minor contraindications consist of catarrh and erosions of the cervix, excessive weight of the uterus whatever its cause, extreme flexibility of the uterine walls and vaginitis.

The following cases are presented to illustrate the benefits accruing from the use of pessaries in appropriate conditions:

Case I.—Mrs. L——, multipara, had been annoyed for several weeks by various ill-defined but uncomfortable sensations in the sacral region, which she had come to regard as of uterine origin. Examination revealed catarrh of the cervix with marked retroversion. The uterus was easily replaced and afterwards maintained in position by a Smith's retroversion pessary. The skirts were suspended from the shoulders, and hot water irrigation ordered daily. The catarrhal condition received appropriate local treatment, and in three weeks the patient was instructed in the removal and introduction of the pessary, and allowed to go home. In six months she returned altogether relieved of the subjective symptoms. She had abandoned the use of the pessary except when there was likelihood of special strain on the uterine supports. The uterus was in normal position and free from catarrh.

Case II.—Mrs. H——, multipara, began to complain of her bladder about seven weeks before consulting Dr. Simmons, who, in my absence, diagnosed anteflexion and anteversion of the uterus. Vesical tenesmus had been so constant and severe as to confine the patient to bed for several weeks previous. Dr. Simmons introduced a cotton support. Relief was marked and immediate. After two or three changes of the cotton support I fitted a Thomas anteversion pessary, and sent the patient home. She returned every two weeks reporting constant and permanent improvement until February 17th, when I found her in that condition in which every woman who loves her lord desires to be. The pessary was removed, and on the following day, after considerable "shopping," the patient assured me she was feeling as well as ever.

Case III.—Mrs. P——, multipara, 44 years of age, had inflammation of the lower bowel some weeks ago, and for the six weeks

previous to consulting me had been abed with vesical tenesmus which had rendered standing and even sitting impossible. The anterior half of the perineal body was lost. The uterus and the anterior wall of the vagina were prolapsed. A large sized Gehrung anteversion pessary was inserted, with the hope of sustaining the anterior vaginal wall, but on account of the defective perineal support it could not be retained. A stem pessary with abdominal supporter was then applied. Relief was immediate, and became complete in two weeks.

Case IV.—Mrs. L——, multipara, while out on a long country trip, was taken with irritable bladder. Domestic remedies failing I was consulted, and found decided anteversion with anteflexion. A Gehrung pessary was fitted, a spring abdominal supporter applied, and the skirts were supported from the shoulders. The local symptoms abated at once, and in three weeks the pessary was removed without their return.

Case V.—Mrs. P——, still nursing her first child, about January 10th began to complain of dragging pain in the back and loins, which was greatly aggravated by long standing or walking. The uterus was found slightly enlarged, retroverted and prolapsed. Pregnancy was suspected, and a Thomas retroflexion pessary introduced. Returning two days later, the patient expressed herself as completely relieved. On February 13th, the evidence of continued symmetrical enlargement of the uterus confirmed the diagnosis of pregnancy. Patient continues to enjoy immunity from the troubles of which she complained.

Case VI.—Mrs. S——, has had two, and possibly three, abortions in the third month or earlier, but no living children. She missed her menses on December 5th, and soon afterward felt dragging pains in the sacral region. These pains growing worse, and finally being accompanied by considerable pelvic pain, the patient, contrary to the growing fashion of her sex, feared rather than courted an abortion, and consulted me in the hope of averting it. The uterus was enlarged in correspondence with the second month of pregnancy, and markedly retroverted. It was replaced and maintained by a Thomas pessary. In three days the patient returned and reported complete subsidence of the pelvic pain and great amelioration of the discomfort in the back. At the present writing, March 15th, she is still wearing the pessary, in full hope of going to term. The pessary was removed on the first of March—probably about the middle of the fourth month of pregnancy. The uterus had risen in the pelvis, and the patient is now pursuing the normal course of pregnancy.

212 J street.

Reports from the Hospitals and Asylums of the Pacific Coast

SACRAMENTO COUNTY HOSPITAL.

Under the Care of G. A. WHITE, M. D.

Abscess of the Liver Treated by Free Incision and Irrigation with Boracic Acid Solution—Recovery.

Chas. C——, æt. 38, a miner, was admitted to the County Hospital Nov. 19, 1887, suffering with abscess of the liver. His primary illness dated from December, 1886, eleven months previously, when, from the history given by himself, he must have had an attack of malarial hepatitis. The patient presented a bronzed appearance, was greatly emaciated, had high fever, and was profoundly exhausted on account of his railroad trip from a neighboring county. Liberal doses of quinine and whisky with morphine hypodermically were given for two days when sufficient reaction had taken place to warrant operative interference. The borders of the sac were tolerably well defined, the abdomen was prominent, about as large as the female abdomen at the eighth month of pregnancy. The upper border of the sac crowded up the diaphragm, so that respiration was attended with difficulty. Fluctuation could be detected in the lower intercostal spaces, as well as over the right half of the abdomen. Selecting a point at the ninth intercostal space, the abscess was opened by an incision about one and a half inches in length, and two gallons of pus discharged. The cavity was freely irrigated with warm carbolized water. a large drainage tube was inserted, and an oakum dressing completed the operation. The after treatment consisted of irrigation of the sac twice daily for two weeks, and afterwards but once a day with a solution of boracic acid (℥i to 1 pt. of warm water). The large drainage tube was replaced with a double tube of smaller size. Later on a single tube was used as long as pus discharged. When the discharge became serous the wound was kept open with a tent of saddler's silk, until finally it ceased altogether. Opium pills were given when necessary for a few days after the operation. The patient was put upon a milk diet with milk punch and gradually fed up to a full diet; little medicine other than tonic doses of quinine and iron was needed in the treatment. The patient made a complete recovery, and was discharged cured February 3, 1888.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By Wallace A. Briggs, M. D., Sacramento, Cal.

Electricity in Extrauterine Pregnancy.—Of all the methods of treatment, writes Dr. Mann, that have been suggested for extrauterine pregnancy but two survive—electricity and laparotomy. Electricity should be first choice, if rupture has not taken place. It possesses the advantages of ease of application, and freedom from danger. If it fails it does not complicate the case. The end of the fifth month as a limit, beyond

which electricity should not be used is entirely arbitrary, and in view of the disastrous results obtained by operating on the living fetus near the end of pregnancy, as contrasted with the good results when the fetus has been sometime dead, the question very naturally suggests itself, why not use it at any period of pregnancy provided it will do the work? Kill the child and then operate. This is still to be tested, and, until it has been, we must withhold our opinion. Whether the induced or the interrupted galvanic current be used, seems to make but little difference. If the former be chosen, either the secondary or the combined current must be as strong as the patient can possibly bear, and if this does not suffice to effect a change in the symptoms within a few days, it may be necessary to give an anesthetic in order to be able to use a stronger current. A single cell battery, with a large coil, will generally be strong enough. Each application should last half an hour, and from Landis' experiments it might be worth while to continue it even twice as long should shorter sittings fail. As there is no way of measuring the induced current, no positive rule can be given as to the strength to be employed. As to the galvanic current more precise rules can be given. A strength of from 10 to 20 milliampères is required; one pole over the sac outside, and one in the vagina. The current must be interrupted 120 times a minute. The negative electrode should be a metal ball, while the positive pole may be a large sponge, or, better, a metal plate, six inches square, covered with chamois or absorbent cotton. Whichever current is used, two or three applications may be enough; but more may be required, and they must be kept up and the strength gradually increased until the symptoms begin to abate. In no other way can we be sure that the child is dead. In two of the cases observed by me, the first sign of improvement was relief from pain, and, almost coincident with this, a shrinking of the breasts. Diminished tension of the cyst soon follows, and all the symptoms improve. In neither form is the action of the current electrolytic. The current acts directly on the fetus, destroying it by nervous shock—much as a man is killed by lightning.—*Annals of Gynecology*, February, 1888.

Antiseptic Uterine Therapeutics.—Chronic catarrhal as well as chronic suppurative inflammation of the uterus may be regarded as septic lesions, resulting from inoculations by way of the vagina. If this hypothesis is not fully established, it is supported by important considerations. If the various pathogenic organisms that produce the obstinate lesions of chronic mucous metritis have not yet been isolated, cultivated and inoculated, their presence has been demonstrated in a large number of cases. The secretions that escape from the uterus in cases of inveterate catarrh nearly always abound in microörganisms, which do not exist in the slight transparent mucus secretion that may be removed from the normal cervix, and which, in a number of cases, have been found to disappear after cure by the new methods of treatment. Moreover, no doubt remains as to the genetic relation of the gonococcus to ancient gonorrheal metritis, which is probably the most frequent form of chronic uterine inflammation. Accepting these theoretical notions then, the surgeon approaches chronic endometritis from a new standpoint. In presence of this affection characterized by catarrh, by increase in volume and sensibility of

the uterine body, and generally, also, by ulceration of the cervix, by pain and by metrorrhagia, he finds it necessary to institute a surgical treatment, that embraces the uterine cavity. To attack the visible lesions of the cervix and cervical canal only, is to invite failure. For still, above this, is the septic intrauterine lesion, which remains and reinfects the tissues below. To be radical, then, the treatment of chronic metritis should be total and antiseptic. But the septic character of the affection necessitates special precautions in the examination and preparation of patients. The vaginal and uterine cavities are an infected operation-field, and should be treated as such. The first examination of these patients should be as reserved as possible and free from traumatism. The finger, the speculum and the sound should be carefully cleansed and anointed by antiseptic vaseline, and preceded by an antiseptic injection. When the surgeon shall have recognized the existence of an endometritis, and the absence of contra-indicating periuterine complications, he may then proceed to disinfection of the field of operation.

Vaginal Antisepsis.—This is the first act in the surgical treatment of metritis. In this disease the vagina is necessarily inspected. It would, indeed, be bad antisepsis to curette the surface of the uterine cavity, and at the same time to permit the free development in the vagina of pathogenic organisms, that would certainly be the focus of new infection, rendered still more grave by traumatism. This asepsis of the vagina can be but very imperfectly attained by the sole use of injections as they are ordinarily employed. In my opinion, however, it can be secured by the following simple means, viz.: Thorough injections of bichloride (1:2000 solution) at a temperature of 100° to 105° F., repeated several times in the twenty-four hours. After these injections the speculum should be carefully introduced, and the cervix and culs-de-sac wiped with aseptic cotton. If mucus adheres to the parts it should be removed with cotton saturated with bichloride solution (1:1000) with which the cervix and entire vagina should also be bathed. The vaginal cavity should then be packed with iodoform cotton or iodoform gauze. The antiseptic cotton should be placed between the labia also and maintained in place by a T bandage. This packing should remain for at least twenty-four hours, and be removed by antiseptic injections. The operation should follow at once. If this is impossible the packing should be renewed and maintained until the operation can be done.

Treatment of Endometritis.—Slow antiseptic dilatation of the uterus, curetting, cleansing, cauterization and dressing the uterine cavity; plastic operations on the cervix, vagina and perineum are the means that are now in the hands of the surgeon to combat metritis. They are not all necessary in every case. In mild cases dilatation will often suffice; ordinarily it should be followed by curetting. In still other cases, the restoration of the cervix, vagina and perineum will be necessary to finish the cure and render it permanent. The purposes of dilatation and curetting are to expose the diseased surface, to destroy pathogenic germs by local antisepsis, and to remove the various neoplasms produced by old septic lesions.

Slow Antiseptic Dilatation.—Dilatation of the uterus is not a new procedure, but its employment in the cure of endometritis entitles it to rank as a new therapeutic method. Gradual antiseptic dilatation of the uterus may be accomplished by the use either of antiseptic tents or of small inert tampons. If the tent is chosen it should first be soaked in an ethereal solution of iodoform, and, after thorough disinfection of the vagina, it should be introduced into the cervix and carefully pushed to the fundus. It should then be kept in place either by an antiseptic vaginal tampon or by the small tampons of Valliet crowded into the cervix by its side. Dilatation thus practised is free from danger, and favorably as well as rapidly modifies the lesions of chronic endometritis. The diseased surface is exposed, compressed and brought in contact with the antiseptic that impregnates the tent. After a few treatments of this kind the catarrh improves, and the microörganisms gradually disappear from the secretions. [Dilatation by tampons has already been described in these columns.—*Vide* TIMES, 1887, p. 333.

Curetting the Uterine Mucosa.—This simple operation should be preceded by antiseptic dilatation of the uterus, and should be done preferably under anesthesia. On removal of the antiseptic tents the uterus should be well washed out with a bichloride solution (1:2000). The operation should be followed by antiseptic irrigation and antiseptic tamponade of both uterus and vagina. These dressings should be removed on the third or fourth day. No hemorrhage, no pain, no rise of temperature follows this operation when properly done.

Restoration of the Cervix, of the Vagina and of the Perineum.—In a certain number of cases, even after the cure of the endometritis, by dilatation or by curetting, lesions still remain whose removal is necessary to a permanent cure. Extensive rupture of the cervix, eversion of the cervical mucous membrane, hypertrophy of the cervical lips, prolapse of the vagina and of the uterus are so many pathological conditions that maintain or provoke the uterine lesion. With their removal, the last functional symptoms disappear; the *restitutio ad integrum* is realized.—*Gazette des Hôpitaux.*

SURGERY.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Co's Hospital, Sacramento, Cal.

Treatment of Mammary Tumors.—In many of the very worst forms of advanced, painful, ulcerating scirrhus, where there is no immediate danger of death from marasmus or visceral complications, the breast may be removed with great benefit and relief to the patient. All cases of malignant growths of the breast, as soon as they are diagnosticated, should be removed at once by operation, and in a thorough manner. All doubtful cases should be dealt with in the same way. All recurrent growths should be removed at their earliest manifestation. All non-malignant neoplasms as soon as they show a tendency to enlarge, and especially between the ages of twenty-five and forty years, should be removed without delay. The following, from the writings of Mr. Jonathan Hutchinson, bears

forcibly on this point: "Too late! too late! is the sentence written but too legibly on three-fourths of the cases of external cancer, concerning which the operating surgeon is consulted. It is a most lamentable pity that it should be so; and the bitterest reflection of all is, that usually a considerable part of the precious time which has been wasted, has been passed under professional observation and illusory treatment." When the doctrine of the pre-cancerous stage shall be widely adopted, and when surgeons generally shall recognize the propriety—let me say the duty—of operation for purposes of prevention, then, and I believe not till then, shall we witness a considerable reduction in the mortality of cancer.—MR. JOHN FAGAN in *Dublin Journal of Medical Science*, January, 1888.

An Improved Method of Wiring Compound Fractures.—I offer here two methods of wiring compound fractures which, so far as I know, are original. I have used them both in many cases during the past five years. The first is a modification of the ordinary plan of wiring and twisting. Simply make a half knot or tie, then conclude by twisting. This will not untwist, as the wire becomes locked by the half knot. In the second method, the holes are drilled in the ordinary manner. Between one of the holes and the edge of the fracture, a small gold-plated screw is set. This screw has a small oval head, the under side of which is bevelled. The wire is passed through the drill holes, but, instead of twisting or tying it, a turn is taken around the screw, and with a screw-driver the screw is set firmly down against the bone and wire. This perfectly secures both ends of the wire and prevents a possible slipping. The soft parts are now closed over all, and a permanent dressing applied. The screw and wire are left in the bone, and I have never seen any irritation or necrosis follow. Should it occur, the screw and wire could easily be removed under cocaine. The screw is short and does not penetrate the medullary portion of the bone. After the operation is completed and the leg dressed, plaster of Paris is put over all, and the leg slung up. An ordinary steel crochet hook with a loop of silk will be found almost indispensable in drawing the wire through the drill holes.—DR. PHELPS in *The Post Graduate*, January, 1888.

Case of Amputation for Suppurative Diseases of the Femur.—R. B——, æt. 25, come under my observation last November, with an enormous collection of pus in the popliteal space, the femur much thickened, tender and painful from knee joint to great trochanter. His history was as follows: Three years ago he had pain in the right knee joint, which he called rheumatism. It continued for three months, but he remained at his work, as a butcher. At the beginning of August, 1887, he was struck with a cricket ball on the knee. It caused pain, but he continued at his work until the end of the month, when the pain had become so severe, especially at night, that he was obliged to rest. He was then treated at a hydropathic establishment with baths and frictions for rheumatism. In the beginning of October he came under the care of Mr. Wm. Oxley with the knee joint full of fluid. After a time this subsided, and then considerable thickening of the femur was observed, and the abscess in the popliteal space was very large. I made a free incision

letting out about a pint of pus, and with a probe found the lower end of the femur was bare. The discharge was very considerable, and the patient rapidly became emaciated. Amputation was advised but this was declined until the case became desperate, when the patient consented. On December twenty-eighth I amputated through the hip joint. Lister's abdominal tourniquet controlled all hemorrhage exceedingly well, but the man nearly died on the table from shock. Rapid recovery followed, the temperature never reaching 100° after the first day. The stump was all healed, but a small sinus, in three weeks. On examining the bone, it presented, what appears to me, an unusual condition. The medullary cavity was filled with cheesy pus from end to end, and several pieces of loose cancellous bone. The head was about twice its usual thickness. From the knee-joint as far as the neck of the bone the periosteum was much thickened, and was easily stripped off from the whole length of the femur, but contained no pus between it and the bone. There did not appear to be any communication between the medullary cavity and the popliteal abscess. The whole bone, when sawn in half, presented somewhat the appearance of osteo-myelitis, but the constitutional symptoms had been much less severe than I have ever seen in the disease. There was no attempt at formation of new bone. There is no family history of phthisis.—Wm. A. Gerrard, in *Med. Press and Circular.* Feb. 8, 1888.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By Wm. Ellery Briggs, M. D., Sacramento, Cal.

Participation of the Eyes in a General Spinal Paralysis.—In the *Journal de Médecine et de Chirurgie Pratiques*, Dr. Calignon reported the following case: July 15, 1885, a young man 17 years old, of robust constitution, consulted him. For several hours the vision of the right eye had been completely abolished. The evening previously, when walking through the forest, he had been perplexed by remarking that the same organ seemed, from time to time, to become suddenly amaurotic. The most careful examination, both with the unaided eye and with the ophthalmoscope, revealed nothing abnormal. There were no cerebral symptoms. Urine free from albumin and sugar, good appetite and functions of the digestive tract perfect. Temperature, 37° C.; pulse, 70. July 18th, the mild complication of a sensation of heaviness of the head. July 20th, cephalalgia and nausea. July 22d, a slight febrile condition, considered to be due to the neuralgia. Pulse, 90; temperature, 38°. July 23d and 24th, the pain quite intense in the large articulations. Salicylate of soda had no effect. July 26th, the left eye began to show symptoms of amaurosis which became complete on the 27th. Twelve days after the beginning of the symptoms the patient had a violent cephalalgia, a temperature averaging between 37.5 and 38.5°; pulse, regular, strong and 90; absolute blindness; a moderate mydriasis; a slight congestion of the retinal vessels as demonstrated with the ophthalmoscope. On August 1st there were the new symptoms of opisthotonos, retention of urine and feces, irritability, without alteration of the faculties. On the 8th vesical

and rectal incontinence, beginning motor and sensory paralysis of the right arm. On the 10th the paralysis appeared to be complete. On the 15th the left arm seemed to be equally paralyzed. The legs were paralyzed as follows: The right on the 20th and the left on the 28th. At the latter date there was absolute amaurosis both right and left myosis; fever of about one degree; absolute abolition of motion in the four members, incontinence of urine, and absence of head pains; more muscular contraction on application of electric current; greater knee reflex, and plantar irritability; integrity of the faculties, but apparent perversion of character. The following week the plantar reflex disappeared: notwithstanding the patient ate and drank well the muscular atrophy rapidly advanced until all the muscles of the body were implicated. Iodide of potash, tonics, the douche and the application of electricity were used for a relatively short time. In October the right eye recovered vision, and some weeks later it returned to the left. In November the movements and sensibility returned to the upper extremities, and to the inferior in December. During January the muscles acquired power sufficient to permit the patient to walk with the aid of a cane.. Finally, the recovery was complete by June, 1886, and has continued till the present time.

The author enquires what effection he had to treat, an inflammation of the spinal cord or hysteria? He believes it to have been general spinal paralysis. In response to enquiry, Dr. Charcot replied as follows: Your case is indeed very interesting, but it is not a case of hysteria. It is a rare example of general spinal paralysis, rapid in its progress from the beginning. I have reported several cases of recovery. There is, however, in your case, an anomalous condition, *i. e.*, the participation of the eyes at the beginning of the attack. The case is, for the time, unique.—*Rev. Clin. d'Oculistique.*

A Case of Hysterical Aphonia Cured by Suggestion During the Hypnotic State, was reported by M. BOTTEY to the Société Médico-pratique. In confirmed hysteria, and particularly in convulsive hysteria, suggestion may, in some cases, give good results in combatting certain pathological symptoms, such as contractions, paralysis, neuralgia, etc. The point which renders the observation remarkable is that M. Bottey was able to produce hypnotism without the knowledge of the patient, by a physical procedure. Miss X——, æt. 26, after having suffered with various symptoms of hysterical nature, became aphonic. This condition had existed for eighteen months when she was presented to the doctor. At that time she could still make herself understood in whisper. Laryngoscopic examination revealed nothing; there was anemia, anorexia and attacks of gastralgia. Electricity by the interrupted current, and methodical hydrotherapy gave no results. M. Bottey, without making his intention known to the patient, applied a weak galvanic current of five or six milliampères to the temporal region. The positive electrode was placed on the left, and the negative to the right side, at the same time requesting the patient to close the eyes and remain calm. At the end of a few minutes an imperfect somnambulistic condition followed, in which illusions could be produced by various suggestions. Then, interrupting the application of the

current, the doctor commanded the patient to pronounce the letters of the alphabet, then a certain number of isolated words and entire phrases, and finally caused her to sing. The voice was hoarse. At the end of ten minutes he remarked to the patient that she could speak clearly, and awakened her by applying the electric current reversed, *i. e.*, the positive pole to the right and negative to the left temple. After having recovered consciousness, the young lady produced articulate sounds, which, without being as clear as during the somnambulistic state, were nevertheless very distinct. M. Bottey repeated the hypnotic *séances* daily, and at the end of five days the laryngeal voice had returned persistently. The knowledge of this method of producting hypnotism is interesting, as it would permit those subjects who are sensible to electro-magnetic agents to be hypnotized in a scientific manner.—*L'Union Médicale.*

Hydrochlorate of Erythrophleine, a New Ocular Anesthetic.—Dr. L. Lewin, reported (*Centralblatt f. Augenheilkunde*) at the Berlin Medical Society, the discovery of a new local anesthetic. If more extended experience verifies his statements in regard to its action, it will be a valuable addition to our resources. Anesthesia produced by solutions of hydrochlorate of erythrophleine is intense. If a one-fifth per cent. solution is instilled into the eye of a cat or rabbit, anesthesia is produced in from fifteen to twenty minutes which persists from one to two and a half days. Even much weaker solutions have similar effect. Solutions as strong as two per cent. cause typical and very intense irritation followed by dense opacities of the cornea. The principal difference between its effects and those of cocaine, are: (1) It takes longer to produce its effects—time varying from five to twenty minutes. (2) It causes some irritation, no anemia of conjunctiva. (3) The pupil and accommodation are uninfluenced by it. (4) A much weaker solution produces more perfect and lasting effects than cocaine. Some of these peculiarities are advantages over cocaine, while others make it less desirable in ophthalmological practice. The local effects from hypodermic injection are profound. If the $\frac{1}{1000}$ part of a grain of hydrochlorate of erythrophleine in solution is injected into a guinea pig one can cut down to the muscles without observing any symptom of pain.

DERMATOLOGY AND VENEREAL DISEASES.

By G. L. Simmons, Jr., M. D., Sacramento, Cal.

Treatment of Syphilis.—In the *Bulletin Gen. de Thérapeutique*, Oct. 30, 1887, is a useful paper on the treatment of syphilis by Prof. Verneuil. As a representative of the more conservative of French surgeons Verneuil speaks with authority on such topics. The conclusions at which he arrives, harmonize with the opinion most generally held. He maintains the superiority of mercury. As regards the diagnostic value of the two agents—iodides and mercury—he never decides the question of a specific lesion except from the results of a trial of mercury. Prof. Verneuil does not advocate the large doses of iodide of potassium now in vogue—2 to 3 gm. (30 to 45 grains) *per diem* being his maximum—except in cases of rapidly destructive ulcerations of the nares, veil of the palate

and similar lesions, and even then, in quantity not exceeding 75 to 96 grains *per diem*. He has never favored the conjoint administration of the iodide and mercury. Occasionally he has made use of the combination of these remedies in slowly developing secondary or tertiary accidents, when mercury does not act well, or has not been given at all. Under such circumstances he prescribes in the simplest way $\frac{3}{4}$ grains of protiodide of mercury and 15.5 grains of potassium iodide. Mercurial frictions, although in some cases acting energetically, do not commend themselves to his judgment. When he has employed inunction he has not dispensed with the internal administration of the protoiodide or some other mercurial, in small doses; nor has he practised the method of subcutaneous injections of mercury, which often cures, apparently, in twenty to thirty days. He holds that the most certain curative results are obtained by the slow saturation of the organism as effected by internal administration rather than by sudden impression.—*Am. Journal Med. Science*, Jan., 1888.

Antipyrin in Nocturnal Emissions.—In a recent number of the *Weiner med. Blätter*, Dr. Thör, of Bucharest, gives some particulars as to the effect of antipyrin in cases of nocturnal emissions. Lupulin and camphor had been justly abandoned in such cases. Curschman (*Functionelle Störungen der Männlichen Genitalien* in *Ziemssen's Handbook*, 1878, p. 518) states that the sedative effect of lupulin on the genital organs, in spite of all the recommendations, was not proved. As to camphor, it has, according to his opinion, no better effect. Fürbringer (*Krankheiten der Harn and Geschlechts Organe*, 1884, p. 347), is of the same opinion. Zeissl (*Syphilis*, 1882, p. 112), recommends it in the first place, as do Purgsz (*Receptiachenbuch für Venerische Krankheiten*, 1883, p. 21), and other writers. The effect of nux vomica, arsenic and atropine is also uncertain. Among all the remedies hitherto employed, bromide of potassium or bromide of sodium was the most useful. Diday (*La Practique des Maladies Veneriennes* 1886, p. 538) recommends it to the exclusion of every other drug. Bromide of potassium, from 2 to 5 gm. in a glass of water, taken just before going to bed, will, according to his experience, exert a prompt effect and check the pollutions. The prolonged use of the bromide preparations, however, as is well known, produces an acne-like eruption, and the use of the remedy, had, for this reason, often to be discontinued. Dr. Thör states that he has found antipyrin an excellent substitute for the bromides. He gives it in doses of from half to one gramme, to be taken by the patient a short time before going to bed. In seven cases it had proved very successful, and checked the pollutions. No disagreeable after-effects were observed. In "neuro-asthenia sexualis," in the sense of Baird (*Die Sexuelle Neuroasthenie*, 1885), antipyrin could also be used with excellent results, but the dose had, in these cases, sometimes to be increased from 1 to 2 gm. a day.—*N. Y. Medical Journal.*

Circumscribed Hypertrichosis in the Lumbar Region.—Dr. Ohman-Dumesnil, of St. Louis, reports in the *Journal of Cutaneous and Genito-Urinary Diseases*, March, 1888, a case of this nature, in which the situation and the length to which the hair grew were remarkable. The subject had received a fall some years before and a slight injury to

the lumbar region. No liniments were applied. On recovering, he noticed a tendency to the growth of hair in a circumscribed area just above the internatal cleft, corresponding closely with the position of the tail in the lower animals. The hair area was about two and a half by three inches, and within it the hair is of a fine silky texture, which, at one time, when from curiosity to see how long it would grow, he allowed to attain the length of three feet. No other part of his body is similarly affected. He is content with keeping it closely cut, and refused to undergo any treatment for its removal.

Are the Tertiary Products of Syphilis Infectious or Not?—According to ZEISSL (*Deutsche med. Zeit.*), the question of the infectiousness and transmissibility of the products of tertiary syphilis can be summed up in the following conclusions: (1) The offspring of those having tertiary syphilis are, as a rule, healthy. (2) The secretion from broken down primary sores, and the products of the papular stage of syphilis brings forth a syphilitic reinfection in those affected with gummy nodes. (3) Inoculation with the secretion of gummy nodes has never succeeded.—*Journal Cutaneous and Genito-Urinary Diseases*, March, 1888.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M. A., M. B., C. M., Professor of Therapeutics, University of California, San Francisco

Thymol in the Diarrhea of Phthisis.—DR. EDWARD T. BRUEN, of Philadelphia, calls attention to the excellent results obtained from administering thymol in the treatment of diarrhea, which is such a frequent complication of phthisis. He reports more than twenty cases in which the ordinary astringents and opiates had failed to benefit the patient, but where almost immediate relief followed the use of thymol, in doses amounting to 20 or 30 grains in twenty-four hours. The benefits derived from thymol in such cases are due to the drug being an intestinal disinfectant, which may be given in doses sufficiently large to arrest or prevent fermentation without producing any injurious effect or disagreeable symptoms in the patient. It is best given in pill or capsule.—*Therapeutic Gazette*, February, 1888.

Naphthol as an Intestinal Antiseptic.—M. BOUCHARD has recommended naphthol, also called beta-naphthol, as an effective intestinal disinfectant, capable of arresting fermentative processes without the production of any unpleasant results. The drug is soluble in alcohol, and is given in doses of about 40 grains in twenty-four hours, but this amount may be exceeded without fear of injury.

Olive Oil in Hepatic Colic.—DR. JUST TOUATRE, of New Orleans, reports how he successfully treated himself for biliary colic. At 7 P. M., he took a blue pill, and twelve hours later this was followed by six ounces of olive oil swallowed at one draught. Fifteen minutes later the draught of oil was repeated, and the patient lay down upon his right side. At nine and three o'clock there were copious evacuations of the bowels containing bile but no gall-stones, but between seven in the evening and midnight there were six passages in which gall-stones were found. Al-

together about sixty gall-stones were passed, some of them being as large as an olive. The escape of the gall-stones was without pain, with the exception of a few spasms, due probably to the passage of the larger calculi, and was followed by relief from the pains over the liver and diminution in the size of that organ. Three months later another attack of colic demanded a repetition of the treatment, which, on this occasion, was followed by the passage of eighteen additional calculi, since which time the patient has enjoyed perfect health.—*Therap. Gaz.*, Feb., 1888.

Dangers from Cocaine.—In the *British Medical Journal*, February, 18, 1888, Dr. Fortescue Fox reports a case in which alarming symptoms followed the application of a 2 per cent. solution of cocaine, in spray form, to the throat. The spray was used about 5 P. M., and was speedily followed by coldness, numbness of the tongue, weakness of the lower limbs, together with mental distress and great depression. She remained more or less unconscious until after 2 o'clock the next morning, after which she began to improve, but it was some weeks before she regained her usual health. In the *New York Medical Journal*, of the same date, Dr. J. A. Nichols reports two cases of gangrene following the use of cocaine as an anesthetic in minor surgery. The first case was one in which the flaps sloughed after amputation of a terminal digital phalanx, which had been crushed, but as the finger was amputated a second time under the influence of cocaine, and healed by first intention, it is probable that the gangrene was due to some injury of the cutaneous nerves and not to the cocaine. In the second case gangrene attacked the integument and mucous membrane of the penis after circumcision. The slough separated and the part healed by granulation.

Strophanthus.—The reports concerning the therapeutic value of this drug are still very encouraging. Dr. Rosenbusch, of Lemburg, after prolonged clinical investigation, concludes that it increases the force and duration of the cardiac systole, while the arterial tension is raised and the heart slowed. The diuretic power is distinct, but very slight. As it prolongs the systole it should not be used in aortic stenosis.

Simple Means of Arresting Hiccough.—Dreisch (*Bulletin Général de Thérapeutique*) suggests a simple means of arresting hiccough. He directs that the auditory meatus on both sides be closed with the fingers, exercising a certain amount of pressure at the same time. A few swallows of liquid are taken, which can conveniently be administered by another person. He says that the hiccough instantly ceases, and believes that this is due to the contraction of the glottis.

MEDICINE AND PATHOLOGY.

By Albert Abrams, M. D., Demonstrator of Pathology, Cooper Medical College, San Francisco, Cal.

The Determination of Acid in the Stomach by a Simple Method.—The value of ascertaining the presence of acid in the stomach, is at present of great diagnostic importance, and if the results are not always positive, it is owing to the difficulty of obtaining an insufficient amount of material

for examination. These difficulties have, in a measure, been overcome by F. Spaeth. His method is based on that of Riegel, who uses congo-red as the reagent for hydrochloric acid. Dried elderpith is cut into small cylindrical pieces, and allowed to remain for twelve hours in a .015 per cent. watery solution of congo-red; they are then dried. A silk thread is attached to each cylindrical piece and the latter is swallowed. To facilitate deglutition and provide for the pith attaining the most dependent portion of the stomach, a small shot, free of arsenic, is likewise attached to the pith. It is much easier, however, to use only the silk cord, which has been previously soaked in the congo solution, attaching to its end a shot. A bluish coloration of the fibre will indicate the presence of hydrochloric acid.—*Wiener medizin. Presse*, January 1888.

Acute Progressive Polymyositis.—Unverricht, under this head, describes a case of true acute inflammation of nearly all the voluntary muscles. The laryngeal and respiratory muscles were likewise involved in the inflammation, and the patient died from suffocation, superinduced by pneumonia. During life the symptoms were similar to trichinosis, but a piece of the deltoid muscle, which was removed, showed no trichinæ. The autopsy disproved the theory of trichinosis, and demonstrated an inflammation of nearly all the muscles of the body. The diaphragm and ocular muscles were free from inflammatory symptoms, whereas, in trichinosis, they are principally involved. The etiology of this case was obscure. An analogous case is not found in medical literature.—*Zeitschrift für klinische Medicin.*

Toxic Properties of Expired Air.—Brown-Séquard, adduces as a result of experiments, the interesting fact, that the expired air is highly poisonous. If the expired air of man be condensed, a fluid is obtained which is very toxic in its action. 4 to 30 gm. of this fluid injected into an artery, vein or subcutaneously, is followed immediately by the death of the animal experimented on. At the necropsy hyperdistention of the heart and engorged blood vessels are found, together with other indications, pointing to an intense irritation at the base of the brain. To determine whether the toxic element was of bacterial or chemical nature, the following experiment was conducted: The condensed fluid was heated to a temperature of 105° C., which resulted in a destruction of the micro-örganisms, and it was found that the toxic action of the fluid was intensified. He concludes that the toxic ingredient of expired air is a chemical substance, probably an alkaloid. Other French observers have in the main coincided with him.—*Wiener medizin. Presse*, January 29, 1888.

The Treatment of Typhoid Fever.—Prof. Jaccoud. Attention is primarily directed to the regimen, the fundamental agent being milk. One of the main dangers in typhoid fever is from urinary insufficiency, which can best be combatted by a milk diet; the latter increases diuresis and assists in the elimination of excrementitious products. A little bouillon and good wine completes the diet. By anti-thermic medication he refers to agents which lower temperature by removing the heat which is generated by tissue combustion. The agent he uses is cold water, which is applied in the form of cold lotions, and is rendered more efficacious by the use of vinegar. These lotions are repeated four times daily,

if the temperature does not exceed 39° C.; six times a day if it attains 39.5° C., and eight times daily if this temperature is exceeded. These cold affusions must be used until convalescence is established. Temporary refrigeration from .7 to 1° is noted after each application, and lasts from half to one and a half hours. Stimulating medication, the basis of which is alcohol, is used in connection with cold affusions. If bronchial catarrh exists, 40 dry cups are applied to the lower extremities, and repeated daily for six or ten days. The latter procedure is only resorted to when pulmonary congestion is very pronounced. This constitutes the only treatment for the average case. Antipyretics, notably quinine and salicylic acid are used when the fever is not greatly influenced by cold affusions. Preference is given to the quinine, which must never be administered for more than three days in succession. He uses the bromo-hydrate of quinine, securing thereby an antipyretic as well as sedative action. The time for giving the quinine is influenced entirely by the temperature curve. The morning is more easily influenced than the evening temperature. The use of salicylic acid is contraindicated in atony of the heart, nephritis and cerebral affections; if none of these conditions exist, salicylic acid is preferred to quinine; the former has a greater influence on the temperature, in the excretion of waste products and in its antiseptic action. In grave cases of typhoid fever, cardiac failure must be expected; then the use of quinine and salicylic acid must be replaced by digitalis—best administered in the form of the infusion. If diarrhea exists, he does not check, but on the contrary, provokes it if it does not occur. He does not countenance the use of antiseptic intestinal agents. The pathogenic organisms are situated, to a great extent, in the mesenteric glands and spleen, situations which are remote from antiseptic interference. Naphthol, the principal agent used in such antisepsis, is often followed by obstinate constipation, and observation has taught that the mortality and duration of the disease are in no wise influenced by intestinal antisepsis.—*L'Union Médicale*, January 26, 1888.

Primary Bacillary Interstitial Nephritis.—LETZERICH (*Zeitzschrift f. klin. Medicin*, Bd. xiii, Hft. 1), says that this new form of nephritis occurs endemically, and usually effects children. The symptoms of this disease do not differ materially from other forms of acute nephritis. The fever as a rule is not very pronounced. The usual course of the disease is from three to six weeks. 25 cases are reported; death occurred in 4, or 16 per cent. The diagnosis is based on an examination of the urine. The percentage of albumin is not large, and in the sediment numerous bacilli are found. The bacilli are readily found in dried preparations after staining with aniline colors. The bacilli are described as cylindrical shaped bodies. In experimenting on rabbits with the bacilli he was able to reproduce the nephritis, and in the kidneys of these animals the bacilli were found in large numbers. In the kidneys of two children who succumbed to the disease, the bacilli were found in a nest-like arrangement, particularly in the interstitial tissue, corresponding to the union of the medullary and cortical substance. The treatment consists of a stimulating diet, diaphoretics and the use of benzoate of soda as a germicidal agent.—*Deutsche med. Wochenschrift*, February 16, 1888.

Sacramento Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: APRIL, 1888.

THE STATE SOCIETY.

If persistent work and constant supervision count for anything, the coming meeting promises to be one of the most successful that has ever been held. In another column we give a general review of the more prominent features, with such information as will be useful to intending visitors. In connection with transportation and hotel rates, we would urge upon members the necessity of availing themselves of the reductions in every case. There are some to whom these are not an object, and others who travel short distances do not care to undergo the little trouble which attaches to it. On behalf of those to whom this is a matter of importance, we ask members to bear in mind that the railroad companies do not make a rebate *until* it is certain that *fifty tickets* will be sold. An excellent feature promised is the exhibition of medical supplies, which cannot fail to be both interesting and instructive. We have already commented on the absence of a proper discussion on the various reports which are often received in silence, and suggested that the system in operation elsewhere might be adopted with advantage. The President has now taken the initiative by requesting several members to open the discussions. These names are sufficient guarantee that an additional source of interest is ensured. The meeting opens April 18th, at B'nai B'rith Hall, 121 Eddy street, San Francisco, and continues in session three days. All communications and inquiries should be directed to Dr. C. G. Kenyon, Chairman Committee of Arrangements, 664 Mission street, San Francisco. Applications for membership should be addressed to Dr. Jules Simon, Chairman Board of Censors, 323 Geary street, San Francisco. We look for a large and representative meeting.

AMERICAN MEDICAL ASSOCIATION.

The meeting of the Association, which begins on May 8th, at Cincinnati, promises to be both successful and harmonious. The warring factions of the past have lost their *casus belli*, and like good citizens should unite for the common weal. In the late internecine war, both sides can claim a victory—the one, as the Congress was less successful than its presence could have made it; the other, that it was not in any sense a failure. Thus, resting on their laurels, mutual good-fellowship and friendly feeling should be restored. The local committee reports that satisfactory arrangements for the reception of the Association have been made, and that the social features of the reunion will not be neglected.

NOTES.

The State Society—Rates and Fares.

The Committee of Arrangements announce the following reductions in transportation and hotel rates. On all railroads a rebate of 33⅓ per cent. on first-class, unlimited tickets will be granted to all physicians (including immediate members of their families) who attend the meeting. In order to obtain this reduction, the receipt of the agent is to be taken at the time of purchasing the ticket; a blank form for this purpose has been sent to physicians throughout the State. This form must be endorsed by the Secretary at the meeting, and upon presentation to ticket agents at San Francisco the rebate will be made on the return ticket. These tickets *must* be purchased within forty-eight hours after adjournment and are limited to April 22d, 1888. The P. C. S. S. Company gives a rebate of 25 per cent., which includes board and lodging. To obtain this the same rules must be observed. The following hotels have offered a reduction of 33⅓ per cent. from regular rates: Baldwin, Brooklyn, Grand, Lick, Occidental, Palace and Russ.

An Exhibition.

Hitherto there has been but a meagre display of drugs and surgical appliances, and the limited space in an ill-lighted corridor served still further to detract from its utility. At the coming meeting a spacious and well lighted room, adjacent to the general hall, has been secured, and an exhibit of medical supplies is being arranged which promises to be both useful and interesting. The following firms have, so far, signified their intention of particip-

ing: The Bancroft Company, Redington & Co., J. H. A. Folkers & Bro., Hatteroth & Russ, Fairchild Bros. & Foster, John Wyeth & Bro., Parke, Davis & Co., Phillips & Co., Carsen & Co.

Voluntary Papers.

The following is a list of the voluntary contributions received to date: Electricity in Obstetrics, by Mary W. Moody, San Francisco; Some forms of Endoarteritis, by J. H. Stallard, San Francisco; Electrolysis in the Treatment of the Male Urethra, by A. M. Gardner, Calistoga; Neurasthenia, or Nervous Exhaustion, by R. K. Reid, Stockton; Criminal Responsibility of the Insane, by N. S. Giberson, San Francisco; Midwifery Without Ergot, by Walter Lindley, Los Angeles; Experience of a Country Doctor, by H. J. Crumpton, Sausalito. It will facilitate the work of the Committee of Arrangements if intending contributors would report at the earliest possible opportunity.

The Discussions.

At former meetings the reports of the various committees have been received and referred to the Committee on Publication, with a meagre, often without a single observation. This deficiency has been so obvious that with a view to prevent its recurrence the President has requested a member to open the discussion on each report. The following are the standing committees, with the names of the chairmen and of the members, who will open the discussion in each section: Practical Medicine—S. O. L. Potter, San Francisco; W. F. McNutt, San Francisco. Surgery—W. E. Taylor, San Francisco; T. W. Huntington, Sacramento. Obstetrics—Walter Lindley, Los Angeles; W. A. Briggs, Sacramento. Gynecology—C. Cushing, San Francisco; J. Wagner, San Francisco. Diseases of Women—I. E. Oatman, Sacramento; A. W. Saxe, Santa Clara. Diseases of Children—H. M. Sherman, San Francisco; H. Gibbons, Jr., San Francisco. Ophthalmology—G. C. Pardee, San Francisco; A. P. Whittell, San Francisco. Mental Diseases—W. W. Macfarlane, Agnew; J. W. Robertson, Napa. Histology—Julius Rosenstirn, San Francisco; H. Ferrer, San Francisco. State Medicine—Washington Ayer, San Francisco; J Simpson, San Francisco. Medical Topography—J. B. Trembley, Oakland; W. L. Mills, Los Angeles.

Constitution and By-Laws.

It has been suggested that the Constitution and By-Laws of the State Society be revised and collated. As they now stand, there are eleven articles, forty-one sections, and about nineteen amend-

ments, besides the order of business, and thirty-two resolutions, relating to the government of the Society. It therefore requires some study to ascertain the actual force of any particular article, while there is nothing to indicate the distinction between constitution and by-laws. The suggestion is an excellent one, and when the work of revision has been completed the result could be issued to members in a handy form without much expense to the Society.

The Rush Monument Fund.

It will be recollected that at the annual meeting of the State Society, in 1887, Dr. A. L. Gihon, the Chairman of the Rush Monument Committee, of the American Medical Association, made a brief statement of the objects of this movement. On motion of the late Dr. A. B. Stuart, the following resolution was adopted: "*Resolved*, That the Medical Society of the State of California, in convention assembled, endorses the project of establishing a monument to Dr. Rush, and recommends that members attending the next annual session, be prepared at that time to pay their contributions." By this course the Society has, in a measure, committed itself to an individual subscription, and we trust that a respectable sum will he placed to the credit of the fund. The amount asked—one dollar—places it within the reach of all.

The American Medical Association to Meet on the Pacific Coast.

The Committee of Arrangements in its circular letter calls attention to the desirability of the National Association meeting on this coast. It is now 17 years since the Association visited the Pacific slope, and as many claimants for the honor have in recent years been satisfied, the present seems an excellent opportunity to secure a favorable response. Since the meeting in 1871 means of communication have been multiplied and facilities of travel vastly increased. Rates have also been materially reduced, and the time necessarily consumed in the journey has been diminished. We believe that the occasion would be eagerly seized by many to visit the "Promised Land," and that the meeting would be from every point a great success, and that a considerable gain in membership from the local profession would result. The multiplication of railroads within the State has placed the various points of interest within easy reach, and a few days can be most pleasantly spent on our hospitable shores. We can bespeak a hearty welcome for our professional brethren, and assure them that our facilities for their entertainment are unrivalled.

The Lomb Prize Essays.

Mr. Henry Lomb, of Rochester, New York, offers, through the American Public Health Association, two prizes for the current year, on the following subject: Practical Sanitary and Economic Cooking, adapted to persons of moderate and small means. First prize, $500; second prize, $200. The arrangement of the essay will be left to the discretion of the author. They are, however, expected to cover, in the broadest and most specific manner, methods of cooking as well as carefully prepared receipts, for three classes—(1) those of moderate means; (2) those of small means; (3) those who may be called poor. For each of these classes, receipts for three meals a day for several days in succession should be given, each meal to meet the requirements of the body, and to vary as much as possible from day to day. Formulas for at least twelve dinners, to be carried to the place of work, and mostly eaten cold, to be given. Healthfulness, practical arrangement, low cost, and palatableness should be combined considerations. The object of this work is for the information of the housewife, to whose requirements the average cook-book is ill adapted, as well as to bring to her attention healthful and economic methods and receipts. All essays written for the above prizes must be in the hands of the Secretary, Dr. Irving A. Watson, Concord, N. H., on or before September 15, 1888. Each essay must bear a motto, and have accompanying it a securely sealed envelope containing the author's name and address, with the same motto upon the outside of the envelope. The judges will announce the awards at the annual meeting of the American Public Health Association, 1888. It is intended that the above essays shall be essentially American in their character and application, and this will be considered by the judges as an especial merit. Competition is open to authors of any nationality, but all the papers must be in the English language.

Post-Vaccinal Small-Pox.

The London Metropolitan Asylum's Board have adopted a new form of "bed card" for small-pox patients, the object of which is to show the exact character of the vaccination scars, with their number and collective area. The statement of the patient or friends regarding the operation is also to be recorded. The scars are classed as depressed, not depressed, puckered, glazed, not defined in margin. In this connection, the *British Medical Journal* mentions that in 1876, Mr. Marson, Surgeon to the London Small-pox Hospital, prepared a table of observations during twenty-five

years in 6,000 cases of post-vaccinal small-pox, showing the degrees in which the vaccinated were protected against death from this disease. Amongst those stated to have been vaccinated, 21¾ per cent. died; of those having one cicatrix, 7½ per cent.; of those having two cicatrices, 4⅛ per cent.; of those having three cicatrices, 1¾ per cent.; of those having four or more, only ¾ per cent. died, whilst the mortality amongst the unvaccinated, was 35½ per cent. These facts, while not affording an explanation of the question so often asked—Why are two or three insertions better than one?—furnish a very practical illustration of the value of multiple cicatrices.

Effects of Electric Light Rays.

M. Ferrier (*Progrès Médical*, December 31, 1887,) reports the results of his researches and experiences in connection with lesions occasioned by electric light rays, which, from their resemblance to the effects produced by solar rays, he has termed "electric sun stroke." The lesions in question were caused by the rays of a voltaic arc employed in the smelting of metals, and were seen on the skin and in the eye. The exposed skin became red, with slight itching, desquamation followed in four or five days, lasting for about the same period. The ocular lesions are, as a rule, slight, though in rare cases they may be quite severe. There is lachrymation, injection of the conjunctival vessels, and the sensation of a foreign body in the eye. At times there is palpebral spasm. He calls this "electric ophthalmia." These lesions have occurred in persons exposed to the light rays only. According to the opinions of electricians, they are due to the luminous rays, the ocular troubles being caused by the chemical rays, especially the violet and ultra-violet.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting Feb. 21, 1888.

The President, Wm. Ellery Briggs, M. D., in the Chair.

Abscess in Bulbous Portion of Urethra Following Gonorrhea.—Dr. G. L. Simmons, Jr., reported a case in which an abscess had formed four weeks after the appearance of the discharge. The subject, a young man, had used one of the many patent injections, and with entire success as he supposed, until he noticed a swelling just under the pubic arch. The discharge at that time had almost ceased. This swelling, which was accompanied by severe pain and fever, compelled him to seek medical aid.

The injection was stopped, cold applications to the perineum ordered, and an antipyretic internally. An anodyne suppository was found necessary to control the pain at night. Though the acute symptoms moderated the swelling increased until the entire penis became three times its natural size, congested and resistant along its entire length, and the foreskin, which was naturally quite redundant, was painfully distended. Micturition was difficult. The least chordee was insufferable to the patient, and the strength of the anodyne was doubled to counteract the pain. Poultices, as hot as could be borne, were applied, when it became certain that the formation of pus could not be arrested. Under this local treatment, with quinine and iron internally and opium by the rectum, the abscess broke on the tenth day. The opening was evidently in the bulbous portion of the urethra, as there were no symptoms connected with the neck of the bladder. The purulent discharge was quite free. The patient's general health continued remarkably good throughout the whole course of the abscess formation, and with the evacuation of the pus all the minor symptoms disappeared. At no time was there any vesical irritation nor prostatic trouble. Under a mild injection, the gonorrheal symptoms which had again declared themselves, readily yielded. At date, one month from the time of the rupture of the abscess, there remains an infiltration about the bulbous portion of the urethra, which causes the penis to be somewhat bowed during vigorous erection. With this single exception his condition is perfect..

Extensive Wound of Throat.—Dr. Parkinson reported a case of extensive suicidal wound of the throat. D. McM——, æt. 35 years, a passenger on the westbound overland of Feb. 2, 1888, had been observed to be acting in an irrational manner for two days previous. At 4 A. M., when near Antelope, in this county, he was standing on the car platform and either jumped or fell off, the train going at a speed of 25 or 30 miles. He was not discovered until 11 o'clock, when he was placed in a wagon and brought to this city for treatment. He was admitted to the Receiving Hospital at 2 P. M. When seen, soon after, his clothing was wet and mud-stained. On the anterior aspect of the left wrist there was a deep incision, exposing the flexor tendons, but not dividing them. There was also a slight wound on the external side of the right wrist. The throat wound was transverse, about 2½ inches in length, and situated immediately above the thyroid body. The thyro-hyoid membrane had been divided, the epiglottis cut off, and a clean section made down to the vertebral column. The patient, while quite conscious and apparently rational, could not articulate or swallow, and was suffering from dyspnea owing to the accumulation of tenacious mucus in or about the upper end of the larynx. This he could not expel, and relief was only attainable by throwing the body forward and allowing it to run out. Dr. W. E. Briggs, who also saw the case, after a thorough examination, concurred in the opinion that the only treatment possible was to attempt to reunite the divided structures. The wound in the posterior wall of the pharynx was first united with three sutures. It was then attempted to bring down the epiglottis, which was at least one and a half inches above the thyroid body. Four sutures were passed with the effect of decreasing the gap, but

leaving several openings. These sutures were allowed to remain, and others put in with heavier silk, bringing the parts well together. All stitches which did not appear to have any strain on them were removed. Silk was used as being easier to tie in the deep wound. Patient now expectorated some blood-stained mucus and spoke quite plainly. He stated that he was thrown off by the motion of the train, and as he was suffering great pain from his hip and believed that he was fatally injured, he tried to commit suicide. The external wound was closed and a compress and bandage applied. He was then removed to the County Hospital.

Dr. G. A. White, who had charge of the case, subsequently said that the patient was able to swallow by the aid of the esophageal tube. He took nourishment quite freely. He was quite irrational when at the hospital, believing that people were pursuing him. He died three days after admission. A *post-mortem* examination of the wound showed that almost all the stitches had loosened, none holding securely. The body of one of the vertebræ was exposed. He did not believe in deep suturing in these cases.

THE PRESIDENT believed that it was good practice to insert the stitches. He expected, if the man had lived, that a tracheotomy would have been necessary. He did not see how the epiglottis and larynx could have united without these stitches. He did not think that any external sutures would have accomplished this. He believed that though the stitches did loosen they could be coughed up and that they would not cause much local irritation. He would again, in a similar case, put in strong sutures more deeply.

DR. W. A. BRIGGS read a paper on *Clinical Illustrations of the Value of Pessaries* (published at page 158).

DR. I. E. OATMAN, in opening the discussion, said that, as a rule, the local disease, as inflammation or hyperplasia, must be removed before a pessary is employed. He included under this head abrasion or ulceration of the cervix. He had generally found that some modification of the Hodge pessary was sufficient to correct any case of ante or retroversion or flexion, when not due to the foregoing conditions. In some cases he had found it impossible to correct a displacement by any pessary. He believed that "Oatman's Anteversion Pessary" was the best extant for that condition. He thought that the disrepute into which pessaries had been brought, was due to their injudicious use. Like other mechanical means, they required precise adjustment to the particular case, and they were often used before the local diseased conditions were removed. He had tried packing in bad cases, but had always failed.

DR. G. A. WHITE mentioned the case of a woman who had been admitted to the County Hospital some years ago with obscure pelvic trouble. Upon investigation, a large ring pessary was discovered imbedded in the granulating surface of the vagina. It had been in position for eight months.

DR. A. E. BRUNE had not had much success in the use of pessaries. He thought that the various flexible rings which restricted the movements of the uterus were preferable. As a rule, the simplest was the best.

DR. T. A. SNIDER gave thorough attention to the local conditions before using a pessary. He used pessaries less now than formerly. In some obstinate cases of retroflexion he had used the stem pessary with success and without a bad sympton. One case, was a patient with retroflexion who had borne children. After delivery many pessaries had failed to correct the version. Finally, he introduced a stem pessary about two weeks after confinement, keeping her in bed for three weeks; the version had not reappeared.

DR. T. W. HUNTINGTON thought that there was a probable degree of benefit to be derived from the use of pessaries. He rarely used them, and felt that their employment demanded a degree of skill and manipulative dexterity, and a knowledge of the anatomy of the parts, such as few possessed.

DR. W. R. CLUNESS had lived long enough and had used pessaries sufficiently to lead him almost to abandon them, though he still employed Thomas' retroversion pessary. He thought that they were too frequently and hastily used through ignorance of the anatomy of the parts. He believed that there were other means which would overcome the displacement. He had operated in two instances for partial injury to the perineum with this result. Great care should be used in selecting and fitting a pessary, the common mistake being to introduce one which was too large. The shape of the vagina should be considered, and the presence of inflammations or adhesions. Anteversion and anteflexion pessaries had disappointed him. Many patients who were supposed to have been relieved by the flexible ring pessary found that this improvement was temporary. This type was usually introduced in too large a size and did positive damage. The speaker mentioned, that in 1865, a woman came to him for an offensive vaginal discharge. She said she wore a pessary which had been in position for eleven years. He removed the instrument, which was a ring pessary, as thick as a No. 10 gum elastic catheter. The woman subsequently resumed her vocation as a harlot.

DR. J. R. LAINE understood that most cases requiring a pessary, also exhibited a pathological condition, which, if removed, would cure the malposition. Cases of prolapse were an exception. He thought that this "harnessing" the uterus, so to speak, was a mistake. Many cases were not the subject of displacements, though this was often diagnosed.

DR. G. L. SIMMONS had not intended to speak, but as the author had exhibited a pessary which he had devised years ago, he wished to explain its action. The idea of an elastic support attached to elastic cords was to him more rational than putting an elastic ring in the upper portion of the vagina, which must get its support from distension of these walls. Thomas' retroversion pessary should be used quite small. As stated by its author, this form is only a modification of Cutter's. Personally, he had almost given up the use of hard pessaries, and found that he accomplished just as much by an intelligent packing on antiseptic principles. This could be carefully done, and in catarrhal conditions it was very suitable. He had found it more pleasant and more beneficial than the older methods.

DR. W. A. BRIGGS, in replying, said that practically, any condition of

the uterus might be considered as normal which did not produce discomfort or interfere with neighboring organs. He believed that the sphere of pessaries was limited, but that they had a sphere. This was particularly the case in the earlier months of pregnancy, when many unpleasant symptoms were prevented and even abortion averted. They were useful in any temporary case of uterine displacement, as in subinvolution; here the pessary assisted the normal process and sometimes a permanent displacement was averted. Pessaries were essential in cases which produced discomfort and which could not be relieved by operation. Cotton and lamb's wool were beneficial in certain cases, but they prevented remedial measures, as hot water injections which, in inflammatory troubles, as subinvolution, were of great importance. Unless carefully used, packings could become very offensive. They were, after all, modified pessaries.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting Feb. 25, 1885.

The President, J. D. ARNOLD, M. D., in the Chair.

How Some Escape Removal of the Eye; Ocular and Aural Diseases Related to Digestive Troubles.—DR. N. J. MARTINACHE read a paper on this subject, and which included a report of several instances in which he believed that the eye might have been removed. In one of these a piece of steel, which entered the eye, was allowed to remain behind a fold of the iris, without the patient experiencing any annoyance; also, two cases of granular conjunctivitis, in which removal of the eye had been suggested as a probable necessity, but was obviated by means of thorough scarification. He also mentioned cases of conjunctivitis, ulceration of the cornea and glaucoma, associated with digestive disturbance, all of which speedily disappeared after the disorders of the alimentary system had been rectified. Similarly, in one patient an attack of deafness which had lasted for four days disappeared after a dose of cathartic pills, while a similar case was cured by sweating.

DR. G. H. POWERS wished to know whether Dr. Martinache, in treating a case of granular conjunctivitis, endeavored to puncture each granulation, or simply scarified the whole lid.

DR. A. BARKAN asked whether Dr. Martinache regarded depletion as a positive cure in ophthalmia. He was anxious to know, as the only case of gonorrheal ophthalmia he had lost was one which he had ceased to treat at the end of a week, but which was afterwards scarified by another practitioner.

DR. G. C. PARDEE had not used scarifications because, in the results of others, he had seen it to be either of no avail or positively injurious. In his experience glaucoma was not rare in California; neither had he found that operative interference was by any means an invariable necessity for the cure of this disease.

DR. MARTINACHE, in replying, said that he did not regard scarification as a panacea, but it had, in his hands, succeeded where other methods had failed. He had found light scarifications of the whole eyelid the most reliable treatment in the case of chronic congestion.

Thirty-two Calculi Filling the Urinary Bladder.—Dr. J. F. Morse exhibited some urinary calculi taken from the bladder of a patient in the City and County Hospital. On admittance, the patient was in a semi-comatose condition, experiencing great difficulty in passing water, and a catheter could not be passed, as the patient was too weak to endure either the pain or the anesthetic. After death the bladder was found to be very small, containing about half an ounce of water and thirty-two stones so closely packed together as to be faceted on their surfaces.

Case of Ulcerative Endoarteritis.—Dr. J. H. Stallard exhibited a specimen of ulcerative endoarteritis of the aortic valve, following an attack of acute rheumatism. During life a weak aortic sound took the place of a murmur, and led to the diagnosis that only one cusp was affected, as was verified by the autopsy.

The Duty on Medical and Surgical Appliances.—Dr. R. I. Bowie moved a reconsideration of the resolutions requesting the removal of duty from medical and surgical appliances, not because he was opposed to the sentiments contained in the resolutions, but because they were so closely allied to political issues that the discussion would cause discord in the Society. This was carried. On motion, the resolutions were then laid upon the table.

SAN FRANCISCO SOCIETY OF GERMAN PHYSICIANS.

Regular Meeting March 6, 1888.

The President, Dr. Cohn, in the Chair.

Catarrhal Icterus.—Dr. Bayer reported nine cases of catarrhal icterus, among whom were children treated after the manner recommended by Henoch, with hydrochloric acid and "Wildunger" water. The results achieved by the latter water were excellent. One half bottle was recommended to be drunk by children and a whole bottle by adults, daily. The urine after its use became clear on the second day. As a matter of experiment no Wildunger water was given in one case, and the icterus lasted ten days, whereas, in the other cases, the average course of the disease was two to three days.

Dr. Regensburger maintained that many cases of catarrhal icterus were alone benefitted by regulation of diet.

Dr. Kreutzmann attributed the good results of the Wildunger water to the increased diuresis which facilitated the elimination of biliary substances. He called attention to Niemeyer's sententious directions with regard to treatment, viz.: Carlsbad salts, avoidance of fats, drinking large quantities of water.

The President observed that the carbonated alkalies had a solvent action on the mucus which is assumed to be the cause of this form of icterus, and referred the good results of the water to such alkalies.

Middle Ear Disease with Facial Paralysis.—Dr. H. Ferrer demonstrated an interesting specimen obtained after trephining the left mastoid process. The man, from whom the specimen was removed, is 24 years of age, and has suffered from otorrhea of the left ear for many years.

The mastoid region is painful on pressure, and attacks of vertigo have been frequent. Facial paralysis exists. Trephining the mastoid process to the depth of 2½ cm., was practised through bone in a state of eburnation, but no cavity was found. Caries of the pyramid was diagnosed. The patient continued treatment—A fistula was afterwards observed in the upper part of the auditory canal, from which a small piece of bone was removed which plainly showed a canal for the facial nerve. Facial paralysis then gradually improved. A few weeks after, another body was removed, which proved to be the entire cochlea. Since the removal of the latter suppuration ceased. During the last two years he has trephined the mastoid process 37 times with good effect. In a case operated on eight days ago he penetrated to the depth of 3 cm., notwithstanding Schwartz' cautious penetration to a depth exceeding 2½ cm. Speaker furthermore demonstrated on an exquisitely prepared temporal bone, the course of the cochlea, and surprise was expressed that no symptoms of meningitis developed.

Sudden Death Apparently from Renal Disease.—Dr. J. F. Morse reported two cases which were admitted to the German Hospital in a moribund condition. At the necropsy, in one case, the bladder was very much contracted, and contained 32 faceted calculi. In the same case, there was an hypertrophy of the middle lobe of prostrate and purulent pyelo-nephritis. In the second case, the bladder was likewise in a contracted state, and contained a single calculus. [Specimens shown.]

Vaccination.—Dr. H. C. Kreutzmann opened the discussion on vaccination, the subject for consideration at this meeting. He referred to the important conclusions arrived at by the Commission on Vaccination, which met in Berlin, on October 30, 1884. A few of the conclusions are as follows: (1) Primary variolar infection is, with few exceptions, a preventive against reinfection. (2) Vaccination accomplishes the same effect. (3) The length of time that vaccination affords security against infection is various, the average being about ten years. (4) To pronounce on the thoroughness of vaccination, at least two pustules must have developed. (5) Revaccination, after ten years, must follow the primary inoculation. (6) Vaccination is occasionally fraught with danger. Vaccination practised with humanized virus may transmit syphilis, although this *very rarely* occurs. The other danger, consists in occasional wound infection. These dangers can readily be overcome, and consequently, in reality, constitute no real danger. (7) Knowing that all danger can be obviated by the use of animal virus, the latter should entirely supplant humanized virus. The following directions are advised for vaccination and revaccination: Infants should not be inocculated until after the third month. Children, suffering from acute or chronic disturbances of nutrition, should not be vaccinated—exceptions being allowed during epidemics. The instruments used in the operation must be thoroughly clean, and dried with some disinfectant cotton. Instruments not capable of thorough cleansing must be discarded. The instrument should be purely a vaccination instrument and used for no other purpose. The upper arm is usually the site for inoculation. In primary vaccinations 3 to 5 superficial incisions or punctures, and in revaccinated individuals 5 to 8 incisions or punctures are

necessary. Bleeding is to be prevented. The development of two pustules are necessary in primary vaccination to render the same satisfactory. If, however, only one pustule develops then auto-revaccination should be immediately practised. In revaccinated individuals the mere development of papules or vesicles may be deemed satisfactory. [The discussion on vaccination will be continued at the next meeting.]

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Hystero-Traumatic-Arthralgia.—Internal Administration of Boric Acid.—Treatment of Typhoid Fever with Cold Baths.—Pathogeny of Bright's Disease.—Multiple Cutaneous Abscess Simulating Farcy.

At the Salpétrière Asylum, Professor Charcot recently delivered a clinical lecture on a curious case of hystero-traumatic-arthralgia of the knee. The patient was a girl, æt. 22. Her mother was rheumatic and diabetic. The patient suffered from chlorosis and irregular menstruation from the age of 17 to 20. She had a fall on the left knee seven months ago. Six months previously she had pneumonia. Her convalescence was accompanied by facial neuralgia on the right side, periodical paroxysms, vomiting and hematemesis. These symptoms betrayed the hysterical nature of the affection. Hydrotherapy was prescribed. The first douche determined an attack of hysteria, and the accident above mentioned. The patient remained constantly in a recumbent position. The knee was considerably swollen. The peri-patellar fossæ were not discernible. The skin was red and shiny; the local temperature was higher than on the corresponding region of the right leg. The articulation remained, half bent, on its external surface. The muscles of the leg and thigh, especially the biceps, were atrophied. Pressure or the slightest movement of the joint occasioned severe pain. In short, the symptoms pointed to a serious organic affection of the articulation—namely, chronic arthritis. An energetic local treatment was adopted. There was no improvement; the pain became excessive. The limb was kept in splints for two months. This treatment likewise failed. M. Charcot was then appealed to. The existence of hysteria being established, his first consideration was to determine the degree of the hysteric element in the case. In addition to labial spasm, jerks in the head, he detected the following characteristic hysteric phenomena: Paresis and anesthesia surrounded the left arm; there was pain in the left ovary. The pharynx was anesthetic. The field of vision of the left eye was reduced. There was amaurosis of the right eye. In the spinal region hyperesthesia extended from the third to the sixth vertebra. The region of the left knee was anesthetic. Muscular sense was absent in the left foot. The patient could not bend her leg. These symptoms in the leg are found in arthritis. M. Charcot concluded that the patient was suffering from a hystero-organic articular lesion. The hysteria had lent a special character to the articular affection—a more strongly marked contraction and superficial

pain of hysteric nature. In order to ascertain that the articular lesion was not purely organic, the patient was rendered unconscious by chloroform, and the hip joint was carefully examined. It was found that it could be easily moved; that there was no crepitation or effusion; that the patella was quite free; and that, when the leg was extended, the peri-patellar fossæ were as apparent as on the right leg. The shiny, red state of the skin, and the rounded form of the knee during flexion, were due to the application of different local remedies (tincture of iodine, blisters, splints, etc.), which determined an erythematous and eczymatous inflammation of the skin, which reacted on the subcutaneous cellular tissue. The atrophy and contraction were of hysteric origin. M. M. Charcot and Terrillon established the diagnosis of hysteric arthralgia (pseudo-arthritis), accompanied by eczema and infiltration of the subcutaneous cellular tissue, resulting from the topical applications. Such cases are not of exceptional occurrence. Brodie, Coulson and Barwell, in England; Robert and Verneuil in France, and Esmarch, in Germany, have recorded cases of pseudo-arthritis. In the present case, M. Charcot believes that the articular pain may be regarded as psychical, being produced in the mind by auto-suggestion. Symptoms of hysterical arthralgia may be determined in hypnotic patients by slight traumatism, or by the narration of a fall on one of the joints. M. Charcot considers that a moral treatment should be adopted in the present case. In certain instances mock operations have been performed with good results, but any attempt to hypnotize this patient determines an attack. He prescribes massage, or better still, "effleurage." The patient is anemic, therefore hydrotherapy, bitters, tonics, and chalybeates should be employed. This case is a striking instance of pseudo-arthritis, and clearly shows that arthralgia may be regarded as one of the most obstinate hysteric affections, and one which is most difficult to cure.

At a recent meeting of the Société Médicale des Hôpitaux, M. Gaucher reported results of his experiments with boric acid, administered internally. He has ascertained that, in doses which produce the required effects, this substance is not toxic. In local applications, applied to the unprotected skin it is only slightly absorbed, and is not caustic. On this account it is of great service in dermatological therapeutics. In infectious and contagious impetigo, it produces the same results as oil of cade, and has not the disadvantages of this substance. M. Gaucher employed it successfully in a case of cutaneous tuberculosis. He raised the question whether there may not be some analogy between this affection and impetigo. M. Gaucher stated that he had made numerous inoculations with the virus of impetigo. In one case only he produced tuberculosis with these inoculations. He believes that the microörganism of impetigo and that of tuberculosis are quite distinct. He administered internally from 50 cg. to 1 gm. of boric acid, to a series of consumptive patients, with the following results: The general condition improved; the local condition remained stationary. The acid was eliminated in the urine in the form of boric ether. He considers that the internal administration of boric acid might be substituted with advantage for injections with this drug in the treatment of cystitis. He administered 1 gm. of

boric acid daily to several old patients affected with hypertrophied prostate, accompanied by cystitis; the urine, which was thick, and contained muco-pus, was cleared. Boric acid is not astringent like borate of sodium, which is employed by certain surgeons.

The *France Médicale* of January 31st, publishes a communication made by M. Juhel-Rénoy, at a meeting of the Société Médicale des Hôpitaux, concerning the treatment of typhoid fever with cold baths. M. J-Rénoy treated 43 cases of typhoid fever by this method. Only three of the patients succumbed; 65 baths were administered to each patient. The existence of typhoid fever was placed beyond a doubt in every instance. M. J.-Rénoy considers that cold baths prevent hemorrhage, pulmonary complications and syncope, modify the diarrhea, and clear the urine, which becomes abundant. Among the patients he treated were pregnant women, hysteric, alcoholic and tuberculous patients. He believes that this form of treatment is unaccompanied by danger, excepting in cases of perforation of the intestines and peritonitis, in which it should never be employed. M. Dujardin-Beaumetz remarked that M. Quinquand had proved that cold baths increase organic combustion, and consequently the production of caloric. He admitted that cold baths may act as a tonic, but the same result is obtained with tepid baths, which do not offer the same dangers. The increased arterial tension produced by cold baths may cause sudden death in cases where there is cardiac weakness. Moreover, Brand's method is painful, and could not be employed at the hospitals, where typhoid patients are only received on the seventh day after the illness has appeared. M. Féréol has tried this method with unsatisfactory results. He would not say that it did not present certain dangers. M. Hayem stated that he had obtained analogous results to those described by M. J.-Rénoy, with cold lotions, wet cloths, tonics, alcohol, etc. Brand's method was founded on the belief that hyperpyrexia was the cause and not the consequence of this affection, which is a specific infectious disease. Until a specific remedy is found for typhoid fever, M. Hayem considers it more prudent to adhere to the treatment usually prescribed.

At a recent meeting of the Société Médicale des Hôpitaux, M. Gaucher read a paper on the *Pathogeny of Bright's Disease*, of which the following is a summary: The ordinary pathogenic conditions which cause parenchymatous epithelial nephritis, are produced by an excessive proportion of extractive principles in the organism. The epithelial form of Bright's disease may be caused by these conditions alone. If chronic nephritis, resulting from some other anterior cause exists, the renal lesion will be aggravated by a defective elimination of the extractive matters. From these facts M. Gaucher deduces valuable therapeutical indications, for instance; the danger of administering meat broth to patients suffering from Bright's disease. He considers that extracts of meat, in different forms, besides containing toxic mineral salts, such as salts of potassium, contain organic poisons highly deleterious to all patients and even to healthy persons.

At a recent meeting of the Société Médicale des Hôpitaux, M. Féréol made a report on a morphomaniac, who presented symptoms of farcy.

Inoculation with the virus made by M. Nocard gave negative results. It is evident that the abscesses from which the patient suffered are the result of punctures with the needle in administering the drug. He had been addicted to the habit for four years.

PARIS, February 15, 1888.

PUBLIC HEALTH.

By W. R. CLUNESS, M. A., M. D., Sacramento, Cal.

Mortality.—The deaths registered in 85 town districts in the State during the month of February corresponded to an annual rate of 17.68 a thousand of the population, and represent an aggregate of 751,200, the total number of deaths having been 1,108. The total mortality from zymotic diseases was 172, giving a rate per annum of 2.74, as against 4.42 for the previous month. Of these 43 occurred from diphtheria, and 14 from croup; but as nearly all authorities regard these diseases as being identical, they should be embraced in one group. For this reason the classification under the head of croup will be omitted in future, and the deaths reported therefrom included under the head of diphtheria. There have, therefore, been recorded 57 deaths from diphtheria throughout the State for the month of February; 22 died of typhoid fever, and 7 of remittent fever, 6 from scarlatina, 23 from measles, 14 from small-pox, 18 from cerebro-spinal fever and 40 from all forms of diseases of the alimentary canal, which can justly be charged to this classification. The lowest death rate occurring in cities containing 10,000 or more inhabitants has been reported from Stockton, being but 10.40; the highest was in Pasadena, the rate having been 28.50.

Small-Pox.—This disease is evidently subsiding in every part of the State from which it had been reported, excepting Angels, Murphys and San Andreas, in Calaveras county, where it appears to have been mistaken for chicken-pox, and where it has consequently obtained a foothold sufficient to necessitate the intervention of the State Board of Health. All of the cases, however, being now quarantined, and thorough and systematic vaccination having been inaugurated, it is not doubted but it will be confined to the few persons already attacked. The cases are also reported to be of a mild type, as are also the few which are still occasionally reported from San Francisco and other localities.

Cerebro-Spinal Fever.—This form of disease, sometimes popularly called spotted fever, because of the occasional appearance upon the extremities and other portions of the cutaneous surface of hemorrhagic exudations, is reported to have caused death in 25 instances during the month. There is also evidence that it is becoming more prevalent, and likely to form an important factor in the necrological report for the coming month. There can be but little doubt that it is a specific, non-contagious disease, and consequent upon some peculiar atmospheric influence, the precise nature of which is not yet fully understood. If, however, it be at all contagious, it can only be communicated in the most exceptional cases, and when the grossest disregard of the laws of hygiene prevail. So far as can be ascertained, all of the cases that have been re-

ported occurred in persons who had been convalescing from measles, and whose systems were consequently rendered susceptible to whatever atmospheric influence might exist tending to the development of the form of disease under consideration. It not infrequently, however, attacks persons in robust health, especially when that influence prevails which it is believed tends to its development. Yet, whenever the functional activity of the system is disturbed, and the general health becomes impaired from any cause whatever, there can be no doubt but such persons are more liable to be attacked. It has also been observed that many cases which in all probability would otherwise have become quite serious, have readily yielded to proper treatment, when the earlier manifestations thereof received prompt treatment. In all such cases the strictest hygienic precautions, coupled with the most complete mental and physical rest attainable, should be enjoined.

METEOROLOGY.

By J. W. ROBERTSON, B. A., M. D., Assistant Physician to the State Asylum for Insane, Napa, Cal.

Snow in California.—Snow so rarely falls on the coast or in the valley belt of California that its occurrence is regarded as phenomenal. Our rain-bearing winds, being invariably from the south or southwest, are heated by the warm ocean current. When their direction is changed to the west or northwest, fair weather follows. While the wind is from any of these directions the temperature is so mild that snow is not possible. It is only when the cold polar wave surmounting the Rocky and Sierra Nevada Mountains produces a north or northeasterly wind, that the atmospheric vapor can become frozen. The Sierra Nevada Mountains, rising from 8,000 to 14,000 feet, are such an effectual barrier against these cold waves that they but seldom reach us. When they do, their manifestation is so slight, and they are so shorn of all harshness, that the thermometer seldom sinks below 32°—in marked contrast to the blizzards which so periodically sweep over the Middle and Eastern States.

Monthly Bulletin (Signal Service U. S. A.) for February.—*Weather:* The month has been marked by an absence of violent storms on the Pacific Coast, and by unusually high temperatures. The rainfall has been light in all districts. Rain fell in Northern California on the 1st, 10th, 11th, 12th, and 14th; in Southern California on the 1st, 16th, 17th, 28th and 29th; and in Oregon and Washington Territory on the 1st, 2d, 10th, 11th, 12th, 17th, 18th, 19th, 20th, 21st, 27th, 28th, and 29th.

Temperature: The mean temperature for the month was higher than the normal temperature for February in all districts. The departure from the normal increases northward and eastward from Southern California, where it is about one degree, becoming about ten degrees in Eastern Washington Territory and Northern Idaho. Mean temperatures at selected stations were as follows: Walla Walla, 45°; Portland, 44°; Roseburg, 44°; Eureka, 48°; Sacramento, 53°; San Francisco, 53°; Fresno, 53°; Los Angeles, 54°; San Diego, 55°.

Rainfall: The rainfall was markedly below the average February rainfall along the entire Pacific Coast. The deficiency was greatest in Western Washington Territory, where it amounted to five and one-half inches. Along the coast of Oregon and California the deficiency was about three inches. From the coast eastward the deficiencies become less, the rainfall becoming about normal in Idaho and Utah.

California—Tabular Statement for February, 1888.

STATIONS.	Temperature. Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	Rainfall. No. of Days Rain Fell	Total Rainfall	Mean Relative Humidity	Weather. No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Wind. Prevailing Direction.	Furnished by
Auburn .....Cal.	50.9	77.0	28.0	.....	.....	.....	.....	1.40	.....	.....	.....	.....	S.	Southern Pacific Co.
Colfax..... "	47.8	70.0	35.0	.....	.....	.....	.....	2.18	.....	.....	.....	.....	S.	" " "
Eureka..... "	48.1	64 9	31.3	54.8	42.7	11.3	10	1.98	84.8	6	3	10	W.	Signal Service U.S.A.
Fresno..... "	53.2	83.0	29.6	65.5	40.4	25.1	1	.13	74.2	21	8	0	N.	" " "
Keeler..... "	47.8	68.6	30.0	57.9	39.4	18.5	4	1.21	52.4	17	9	3	N.	" " "
Los Angeles.... "	54.4	73.5	39.2	63.5	45.5	18.0	5	.80	83.2	14	8	7	W.	" " "
Monterey ..... "	54.8	72.0	43.0	.....	.....	.....	.....	1.09	.....	.....	.....	.....	SE.	Southern Pacific Co.
Napa..... "	49.0	73.0	34.0	56.6	41.3	15.3	6	1.28	.....	16	9	4	S.	Sta. Napa Ins. Asylum
Oakland..... "	52.3	76.0	39.0	.....	.....	14.0	4	1.02	87.0	18	5	6	W.	J. B. Trembley, M.D.
Paso Robles.... "	47.8	75.0	25.0	.....	.....	.....	.....	.30	.....	.....	.....	.....	S.	Southern Pacific Co.
Red Bluff..... "	53.9	81.5	33.5	63.7	42.8	20.9	5	2.17	58.2	16	9	4	N.	Signal Service U.S.A.
Sacramento. ... "	52.6	75.0	34.0	62.2	43.7	18.5	5	.57	72.1	21	7	1	SE.	" " "
San Diego..... "	54.9	66.8	42.5	61.4	47.5	13.9	5	1.48	77.0	12	11	6	NW.	" " "
San Francisco.. "	52.8	76.3	41.9	60.7	47.1	13.6	6	.94	76.2	12	11	6	W.	" " "
Santa Barbara.. "	53.8	72.0	40.0	61.9	45.7	16.2	4	1.30	.....	17	2	10	W.	Hugh D. Vail.
Santa Cruz .. . "	53.1	78.0	38.0	.....	.....	.....	....	1.93	.....	.....	....	.....	S.	Southern Pacific Co.
Yuma.....A. T.	60.5	84.8	39.0	73.3	46.4	26.8	1	.05	55.2	20	8	0	S.	Signal Service U.S.A.

Blank (.....) indicates data missing.

Clear Day—One on which cloudiness is 3 or less on a scale of 10. Fair Day—One on which cloudiness is from 3 to 7. Cloudy Day—One on which cloudiness is over 7.

REVIEWS AND NOTICES.

DISEASES OF THE SKIN. By John V. Shoemaker, M. A., M. D., Professor of Skin and Venereal Diseases in the Medico-Chirurgical College and Hospital of Philadelphia, Physician to the Philadelphia Hospital for Diseases of the Skin, etc. New York: D. Appleton & Co.

The author of this work on dermatology has presented his readers with a concise statement of all diseases affecting the skin, their location, activity, causes and the means used to combat them. All tedious and cumbering details are omitted. Throughout the entire book is seen the imprint of careful thought, shaped and moulded into a volume especially for the needs of the busy practitioner and earnest student. It is accurately and extensively illustrated, and a series of colored plates, beautifully typify a few of the more common diseases, as chancre of the lip, rosacea, sycosis, infantile eczema, vitiligo, etc. A critical review of the work reveals many admirable features, for instance, in the sections on treatment of the various diseases; the author frequently embodies information of a practical nature as to the best vehicles and methods of administration of the drugs employed. It will be noticed that in the consideration of treatment the writer gives due importance to hygienic and constitutional measures. The chapter on dermatitis is especially complete. The drugs causing eruptions being fully enumerated. Syphilis, in its varied dermal manifestations, is ably considered, and eczema, often that most obdurate of all skin diseases, receives extensive mention. The chapter on leprosy embraces all the recent advances in the etiology and treatment of this formidable and increasing disease. The researches into its bacillary origin are not detailed, but the author concisely gives the present status of our knowledge in these words: "The evidence now in our possession is strongly in favor of the supposition that all the phenomena of the disease are produced by the inoculation and multiplication in the system of a specific microörganism—the lepra bacillus." Concerning scleroderma, the author is inclined to the view that it is incurable, though he states the value of medicines in benefitting the disease. The book is essentially a safe and practical work, embracing the gist of all that has been proved of value in dermatological medicine. We heartily recommend it to the busy practitioner as well as to the student.

THE PHYSIOLOGICAL, PATHOLOGICAL AND THERAPEUTIC EFFECTS OF COMPRESSED AIR. By Edward H. Smith, M. D. Physician's Leisure Library Series. Detroit: George S. Davis.

This is a very interesting as well as useful little volume, commencing with a history of the attempts at treatment of diseases by variations of atmospheric pressure from the days of Dr. Henshaw, twenty years after the invention of the barometer by Torricelli, down to the present time, when the pneumatic cabinet has been so prominently brought before the profession. This is followed by an account of the physiological and pathological effects of compressed air, chiefly in relation to "Caisson Disease," facts which the author's position, as surgeon to the East River Bridge Company during the sinking of the caissons on the New York side, gave him peculiar facilities for observing. The therapeutic effects are obtained by placing the patient in a cabinet specially constructed so as to admit of perfect ventilation, while the pressure is maintained constant at not more than ten pounds to the square inch. The benefits are due both to mechanical and chemical properties. The pressure of the air on the parts exposed to it, such as the skin and mucous membrane, is

very useful in relieving hyperemia of these surfaces. Thus, bronchitis and catarrhal diseases receive benefit from pressure removing the tumefaction of the mucous membrane, lining the passages and promoting absorption of exudations. In the same way, it necessarily follows, that congestion of the deeper structures, such as the kidneys, liver or spinal cord, is produced, and consequently the remedy is indicated or contraindicated according as those organs require stimulation, or are actively congested. Again, much value depends upon the additional amount of oxygen taken up by the lungs and the improved condition of the blood which results. Our readers will see that the matter is one of practical importance, and will merit an attentive study of Dr. Smith's book, in which the subject is presented in an exceptionally compact, yet thorough and interesting manner.

DIARRHEA AND DYSENTERY; MODERN VIEWS OF THEIR PATHOLOGY AND TREATMENT. By Prof. Alonzo B. Palmer, M. D., LL. D. Leisure Library Series. Detroit: Geo. S. Davis, 1887.

The first part of this work deals with the various forms of diarrhea, and the second part with dysentery. The book is thoroughly modern. The ptomaines and leucomaines, as etiological factors in diarrhea, are fully considered, and tyrotoxicon, the cheese poison, receives rather extensive consideration. Aside from a few typographical errors, the book is worthy of recommendation. The profession is indebted to the publisher for having rendered such classical literature so inexpensive.

CYCLOPEDIA OF OBSTETRICS AND GYNECOLOGY, Vol. V, containing Gynecological Diagnosis and General Gynecological Therapeusis, by R. Chrobak, M. D., Professor of Gynecology at the University of Vienna, and Electricity in Gynecology and Obstetrics. By Egbert A. Grandin, M. D., Obstetric Surgeon to the New York Maternity Hospital. New York: Wm. Wood & Co. 1887.

Something more than a third of this volume is devoted to gynecological diagnosis, and at the outset the author lays down a precept that deserves more general recognition. "It is wrong," he says, "simply to proceed far enough in our examination to reach a diagnosis that will explain the symptoms, for thus we may overlook essential abnormities, either on account of faulty estimation of the cause of the symptoms, or else because those detected gave rise to no symptoms. It is our business to make a complete, exhaustive examination, and to search the genital system as well for the presence as for the absence of abnormities." The means and methods of diagnosis are presented in a clear and practical way. Proceeding to therapeusis, the author speaks guardedly of anesthesia, advising it only when the procedure, whether operative or diagnostic, is either so painful or so disagreeable as to offset the unpleasantness and dangers of narcosis. He advises strict observance of antisepsis, and wisely enters into details at considerable length. Antisepsis is but the assurance of asepsis, and is to the conscientious surgeon what soap and water are to the godly housewife. It is receiving the theoretical but hardly the practical recognition that it deserves. In the ensuing chapters the author considers the application of fluids to the vagina and uterus, the use of solid medicinal agents, of caustics, of the tampon, of the curette, of pessaries, local venesection, the application of abdominal bandages, massage and subcutaneous and parenchymatous injections. While he speaks with the tone of authority, he still preserves a judicial attitude that inspires confidence, and one rises from the perusal of his work with the hope that others may follow in his footsteps. Electricity in Gynecology and Obstetrics constitutes about one-fourth of the entire volume. It

covers the ground and is decorated with the routine cuts of batteries, electrodes, etc. We must confess to being weary of the "cabinet battery" staring at us from circulars, catalogues, journals and books, and when it turns upon us from some unexpected page we feel like passing on in haste, as one who meets a former friend. The value of electricity in gynecology is being asserted by the highest authorities, and this work will bring within the reach of all the methods of its application.

BOOKS AND PAMPHLETS RECEIVED.

Modern Treatment of Headaches. By Allan McLane Hamilton, M. D. Physician's Leisure Library Series. Detroit: Geo. S. Davis & Co.

Deux Cas d'Étranglement Interne Traités par la Laparotomie. Par le Docteur F. Fraipont, Assistant a l'Université de Liège. [Reprinted from the *Annales de la Société Medico-Chirurgicale de Liège.*]

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At the regular meeting of the Board of Examiners, held March 7th, 1888, the following physicians were granted certificates to practise medicine and surgery in the State:

Joseph Emile Artigues, San Francisco, Cooper M. Coll., Cal., Nov. 17, '87.
Thomas Moore Blythe, Ocean Side, San Diego; Bellevue Hos. M. Coll., N. Y., March 1, '80.
Thoma A. Cravens, Los Angeles, Long Island Coll. Hos., N. Y., June 25, '74.
James C. Deaton, Jr., San Diego; M. Coll. of Virginia, Mar. 1, '71.
Edmond Elwood Fall, Oakland; Coll. of Physicians and Surgs., N. Y., May 12, '87.
James C. Ford, Sacramento; Missouri M. Coll., Mo., Mar. 4, '59.
Levi Hulber Fuller, Tustin City; M. Dept. Dartmouth Coll., New Hampshire, Nov. 22, '87.
Frank Garcelon, Pomona; M. Dept. Bowdoin Coll., Maine, July 14, '70.
Frederick Gundrum, San Diego; Miami M. Coll., Ohio, Mar. 1, '68.
Isaac Owen Hamilton, Los Angeles; M. Dept. Univ. of Pennsylvania, April 13, '83.
Joseph E. Hall, San Diego; Jefferson M. Coll., Philadelphia, Penn., Mar. 12, '69.
Luther P. Hess, Oakland; Bellevue Hos. M. Coll., N. Y., Mar. 15, '82.
Henry Hildreth, San Diego; St. Louis M. Coll., Mo., Mar. 17, '74.
Wm. Wesley Hitchcock, Los Angeles; Rush M. Coll., Ill., Feb. 25,'79; Bellevue Hos. M. Coll., N. Y., Mar. 10, '81.
H. W. Hughes, Los Angeles; Coll. of Phys. and Surgs., N.Y., Mar. 12, '85
Frederick Lewis Marcotte, San Diego; Chicago M. Coll., Ill., Mar. 20, '77
Isabel M. Meader, Santa Barbara; Women's Hos. M. Coll., Chicago, Ill., April 5, '87.
Robert Warren Miller, Los Angeles; Coll Phys. and Surgs., Keokuk, Iowa, June 20, '76; Bellevue Hos. M. Coll., N. Y., Mar. 14, '87.
Nathaniel Bowditch Morton, Coronado; Harvard University, Mass., June 29, '81.
Joseph Allen Owen, Vina; Louisville M. Coll., Ky., Feb. 6, '88.
Andrew P. Owens, Santa Ana; Louisville M. Coll., Ky., Feb. 27, '77.
Theorilda C. Park, San Francisco; M. Dept. Univ. of Cal., Nov. 15, '87.
James Asher Richardson, San Jose; Toland M. Coll., Cal., Oct. 2, '66; Bellevue Hos. M. Coll., N. Y., Mar. 1, '70.

Francis Fenelon Rowland, Pasadena; Jefferson M. Coll., Pa., Mar. 12, '73
John S. Sargent, Los Angeles; Coll. of Phys. and Surgs., Ill., Feb. 21, '87
Wm. S. Tremaine, Los Angeles; Univ. of Pennsylvania, Pa., Mar. 17, '59.
James Paulding Wallace, Los Angeles; Bellevue Hos. M. Coll. N. Y., Mar. 1, '75.
Herbert Sangster Williams, Fowler; Royal Coll. of Phys. and Surgs., Queen's Univ., Ontario, Canada, April 28, '84.
Albert H. Pratt, Oakland; Bellevue Hos. M. Coll., N. Y., Mar. 1, '78.

WM. M. LAWLOR, Secretary.

Official List of Changes in the Medical Corps, U. S. Navy (Pacific Station), from February 20, to March 20, 1888.

Past Assistant Surgeon Robert Whiting, detached from U. S. S. "Iroquois" March 6, and ordered to U. S. C. and G. Survey steamer "Patterson." Reported for duty March 17.

Past Assistant Surgeon C. W. Dean, detached from Naval Rendezvous, San Francisco, March 17, and ordered to U. S. C. and G. Survey steamer "McArthur."

Assistant Surgeon E. W. Auzal, detached from U. S. C. and G. Survey steamer "McArthur" March 17, and ordered to attend officers in San Francisco not otherwise provided with medical treatment.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (District of the Pacific), from February 20th, 1888, to March 20th, 1888.

Past Assistant Surgeon P. M. Carrington, relieved from duty at Marine Hospital, San Francisco, and ordered to assume charge of service at Pittsburg, Pa.

Past Assistant Surgeon P. C. Kalloch, relieved from duty at Pittsburg, Pa., ordered to report for duty at Marine Hospital, San Francisco, Cal.

Assistant Surgeon W. D. Bratton, ordered to examination for promotion.

ITEMS.

Alleged Fatalities Following Vaccination.—During the last three months there have been various rumors of post-vaccinal deaths, which it has been impossible to verify. One death was reported from New Almaden and another from Yuba City. From the former locality Dr. S. E. Winn states that out of 986 vaccinations since January, 1888, he has not had an unfavorable result. The report from Yuba City seems to have originated in the fact that a boy who had been vaccinated fell through the ice into water at a low temperature. His death took place in 36 hours, the symptoms apparently pointing to brain trouble.

Medical Pension.—According to *L'Union Médicale*, a movement has been started in Paris under governmental auspices, to provide a fund for the relief of the families of physicians who have died from diseases contracted in their professional duties. Hospital internes and externes will be included in the scheme.

THE MEDICAL TIMES will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers; of course not necessarily for publication.

All communications relating to this journal should be addressed to 429½ J street, Sacramento, Cal.

Sacramento Medical Times.

VOL. II. MAY, 1888. No. 5.

A LECTURE ON THE EPIDEMIOLOGICAL ASPECTS OF YELLOW FEVER.

Being a Milroy Lecture[1] delivered before the Royal College of Physicians of London, February 28th, 1888.

By ROBERT LAWSON, L. R. C. S. Ed., Inspector-General (Ret'd.) Army, Medical Department.

[Report specially prepared for THE MEDICAL TIMES.]

Though the literature of yellow fever be very extensive, and highly controversial, the questions discussed in it are but few, the chief being whether it be a highly contagious disease, propagated from man to man, and always imported from some locality where it was already in existence to that in which it newly appears; or whether it be dependent on causes existing at the place where it springs up, and altogether devoid of contagion. The doubts which stood in the way of settling these questions are partly due to there having, for long, been no means of drawing a clear line of demarcation between yellow fever and the ordinary fevers of the country, where the yellow fever showed itself, and, to a much greater extent, from a complete misapprehension of the bearing of the evidence connected with its appearance. To deal successfully with this subject it is necessary to show clearly where the error lies on these points before proceeding further.

There is no symptom seen in yellow fever that may not be met with in other forms of disease, and it is only by grouping them in connection with certain periods in the disease, that its identity can be fairly established. In 1847, at Demerara, Dr. Blair found albumin and tube casts in the urine in yellow fever cases, while in the ordinary remittent and intermittent fevers, occurring at the same time, there was no trace of either in that fluid. Subsequently it was observed in the north of Italy, that, in congestive forms of in-

[1] The late Dr. Gavin Milroy, whose name is known to sanitarians as an able officer of the English Health Department, bequeathed a sum of money to the Royal College of Physicians, London, to found a Course of Lectures on Epidemiology. The first lectures under this will were delivered in London in February and March, 1888.

termittent, the urine contained albumin during the cold fit, but that disappeared during the period of reaction, which is not what is observed in yellow fever. When in Jamaica, from 1856 to 1860, I employed the opportunities which presented themselves there to follow up Blair's investigation, and to acquire what other information I could regarding yellow fever; and after my return to this country the results were arranged, and published in the April and October numbers of the *British and Foreign Medico-Chirurgical Review* for 1862 (vols. xxix and xxx). From these the following are the distinctive characters of this disease:

1. Yellow fever usually terminates in death or convalescence from the fourth to the seventh day; but either may occur as early as the second, or not before the tenth or twelfth, or even later.

2. There is generally yellowness of the eyes and surface, commencing at various periods in different individuals and epidemics.

3. On the evening of the third day, or morning of the fourth, the urine usually presents traces of albumin; on the latter a considerable sediment appears in it, consisting almost wholly of epithelium from the bladder; this is succeeded by an equally copious one on the morning of the fifth day, which consists almost exclusively of granular tube casts from the kidneys, with scarce a trace of the epithelium from the bladder. By this time the albumin has usually become considerable, the chlorides and urea have been greatly reduced, and the urine as a whole, is usually scanty, and may even go on to complete suppression; if there be much yellowness it may contain a variable quantity of the coloring matter of the bile.

4. The alvine discharges are devoid of the natural feculent appearance from the third day onwards, becoming greyish or yellowish white, with quantities of black matter diffused through it, when they are formed; when fluid consisting of mucus tinged with the preceding, or with bile, or blood in variable quantities. On the approach of convalescence the evacuations assume the natural color.

5. As the urinary and alvine evacuations assume these characters there is a great tendency to black vomit, or discharges of similar matter from the bowels, or to the so-called hemorrhages from the various mucous surfaces, or even in some cases from the skin, and, after death, such may be found in the stomach and intestines when they had not been discharged during life.

Such are the distinctive features of a normal case of yellow fever; but in some the urinary symptoms may occur earlier than

here mentioned, and in others they seem delayed for a day or two, but whenever watched from day to day, and properly examined, it is found that the changes in the urine not only embrace the presence of albumin, but indicate desquamation of the bladder and kidneys as regular features of the disease, and when these are fully developed the urea is much diminished, and the chlorides almost if not completely absent.

There has long been a contention between the two parties as to the form of yellow fever, the contagionists affirming that it is always continued with a paroxysm of about seventy-two hours, followed by the characteristic symptoms of the disease; while their opponents maintain that the latter are often found as fully developed in cases in which the fever had been distinctly remittent, or even intermittent, as in those which present the single paroxysm. Previous to our becoming acquainted with the urinary symptoms, when the line of demarcation between the ordinary forms of fever and yellow fever could not be drawn with precision, there might have been sufficient doubt on this point to afford ground for ardent controversialists to differ upon, but the trustworthy diagnosis made possible by the present knowledge of them has enabled numerous observers, in different countries, to verify the fact that yellow fever is met with not only in the continued form, but frequently as a remittent, and from time to time even as an intermittent. Whether the continued form be that proper to the disease, and the others hybrid forms impressed on it when the ordinary malaria which gives rise to periodic fever is rife, need not be inquired into at this time, it is sufficient for the present purpose that it be clearly understood that a form, presenting the characters set forth above as those of yellow fever, occurs both sporadically and in epidemics in a periodic as well as a continued form.

The practical question for settlement in such cases is, whether the attacks of yellow fever which occur in a locality, more or less circumscribed, arise from exposure to causes in operation in the locality at the time, as one party of the controversialists maintain; or whether the disease must have been introduced by some one or more who had come recently from another locality, where it was already prevailing, and from whom it was communicated to others around them, and so on, as is believed by the opposite party. Now, in such an instance, to establish the position that the disease was introduced, and subsequently spread by communication from the sick, it is clearly necessary to exclude the possibility of the outbreak having arisen from local causes, and it is obvious from what

has been explained above that can be inferred, with certainty, only when there are no more cases in the locality at all. In the great majority of examples adduced in support of the contagiousness of yellow fever no attempt has been made to exclude a local cause, and, when legitimately interpreted, the evidence that they afford i quite sufficient to establish the conclusion based on it.

There are numerous well authenticated facts showing that when yellow fever has sprung up in a locality, persons going to that locality may contract the disease, and should they leave before it became developed and go into a healthy one, they pass through the fever without affecting any one about them, and this even when their numbers are considerable. The following is a very striking and instructive instance: There was a severe epidemic of yellow fever at Sierra Leone in 1865, and the "Isis," receiving ship, which had been lying at the anchorage there for some years had several deaths from it on board towards its close. The "Bristol" frigate, with a crew of 500, arrived from England late in December, and anchored four or five miles to seaward of the usual place where the "Isis" lay. It being considered advisable to alter the berth of the latter to a healthier place, a party of 116 men and officers were sent from the "Bristol" to her, on the 28th and 29th of December, for this purpose. These men left the "Bristol" in the morning, and returned to her each night, without going on shore. Two of them were attacked with yellow fever on December 31st, twenty on January 1st, six on 2d, three on 3d, three on 4th, two on 5th, one on 6th, and one on 12th, thirty-eight in all, of whom twenty-one died on board, and two on shore at Ascension. Though the crew of the "Bristol" included many young men fresh from England, and consequeatly quite unacclimatised, not a single case of the disease occurred in any one who had not been exposed in the "Isis." Hence the "Bristol" was a healthy locality, for none of her crew had been attacked with yellow fever before this outbreak, nor were there any subsequently, though a large number were necessarily employed in immediate attendance on the sick while it lasted.[1] This instance may be regarded as a complete experiment, and the results are clear and well defined. The disease was well marked yellow fever, and had it been communicated on board the "Isis" by contagion it should have afforded some indication of possessing this character in the "Bristol," but there was none. Had the men remained on board the "Isis" exposed to the active cause of the disease in her, the ma-

[1] Report on the Health of the Navy for 1886, p. 226.

jority of them would have been struck down by the fever within a month; and the probability is that at least half of them would have died. Under these circumstances the evidence would not have permitted of the local cause being excluded, and the conclusion would have been that the outbreak was due to contagion, which has just been shown was entirely wrong. The great bulk of the evidence which is thought to establish the contagiousness of yellow fever is of the same character; it does not admit of the local cause being eliminated, and the inferences it seems to sanction are altogether erroneous.

A ship may be considered a locality like a circumscribed space on shore, and she may have an active source of yellow fever produced in her, but she differs from the place on shore in this respect, that she is movable and can and when in this state frequently does convey her febrific powers unimpaired to great distances. Her crew and passengers, or such of them as may be exposed to the emanation from her hold in a moderately concentrated state, may present a succession of cases of fever during her passage from one point to another, while others who are less exposed may continue in good health, though they communicate freely with the sick; and at the end of the voyage, when the cargo is being removed by persons who have not been in contact with the crew, many of them may contract yellow fever in its most pronounced form, as well as others who, from curiosity or otherwise, may have exposed themselves to the emanations from her hold; but there is no well authenticated instance[1] so far as I am aware, of yellow fever having been communicated by any of the latter to other persons on shore, who have not come within the range of the emanations from the vessel.

The behaviour of yellow fever at Barbadoes illustrates some very important points connected with the mode of outbreak. The study of a long series of outbreaks made it clear that a local source of that disease existed at the Military Hospital, which became

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[1] The instance of the S. "Anne Marie," the crew of which suffered from yellow fever on the voyage from Havana to St. Nazaire, when carefully examined does not offer such an example. All the persons with two exceptions who suffered from yellow fever at St. Nazaire had either worked in the vessel or had been employed in vessels lying close by her and were therefore exposed to emanation from the hold of the "Anne Marie." In the two cases of persons who had come into contact with the patients only, and not with the ship in neither were the symptoms typical of yellow fever.

active from time to time, and affected the attendants and patients under treatment there, quite independently of any importation from elsewhere; in 1839 the first cases at the hospital were attacked in the end of October, while sick from H. M. S. "Vestal" were admitted on November 17th only; had the latter come to the hospital seventeen days before instead of after the cases occurred among the garrison, it would have been maintained by many that the sequence established communication of the disease from the sick to their attendants at the hospital, but the premises would not have justified the conclusion, as the evidence in that form would not have admitted of the local cause being excluded. So it is in all such instances—communication of yellow fever from sick to well cannot be established if the operation of a local cause at the time, and in the locality, cannot be excluded.

The sick landed in Barbadoes from H. M. S. "Hecla" in May and June, 1841, and from H. M. S. "Dauntless" in November, 1852, did not communicate the disease to any of the other sick or their attendants in these years, and that there was no active local cause in operation at these periods was obvious, as none of the sick soldiers or the attendants were attacked.

The means by which localities on shore, and ships, acquire the power of producing yellow fever, is a very important subject for inquiry; and, as the latter often present the facts in a form more suitable for analysis than the former, well recorded narratives of such outbreaks and the circumstances preceding and accompanying them, are most valuable.

The United States S. S. "Susquehanna" sailed from Spezzia and arrived at San Juan de Nicaragua with her crew in perfect health. She seems to have anchored inside the harbor, where the shipping are within the range of the malaria from the swampy ground surrounding it, and in about ten days intermittent fever began to show itself among her crew, and during the next four months remittent and diarrhea, cholera morbus and scorbutic complaints were not infrequent. She then sailed for Jamaica, landed 85 cases of yellow fever, and sailed for New York, where she arrived a week later, having had 50 more cases of fever during the passage. All the crew were ultimately removed from her, and she remained nearly three months with no one on board. At the end of this period, people employed to remove her stores were again attacked with yellow fever. The surgeon of the "Susquehanna" had not heard of any yellow fever at San Juan while she was there, and though the other ships in port at the time had

intermittent and remittent, none of them had any yellow fever.[1] The hold of the "Susquehanna" evidently contained the soil suited for producing the emanation, and the other factor being supplied during her stay at San Juan, it began to be evolved with the result mentioned above; while both on shore, and in the rest of the shipping, for want of a suitable soil, the general factor to all appearance, proved inoperative. The sick of the "Susquehanna" were landed at Port Royal, during the healthy season, and the disease died out with them.

Another instance of a ship acquiring the condition necessary for producing yellow fever, without communication from a previous case, occurred in H. M. S. "Orion," a screw line of battle ship of 91 guns, which was stationed at San Juan de Nicaragua early in 1857. She had been ashore and was in a leaky condition. When allowed to stand and the hold not regularly pumped out, the effluvia of stagnant water was at times considerable. While at San Juan there was some remittent or intermittent fever on board, but she arrived at Havana on July 14th with her crew "exceedingly healthy." She left for Halifax, N. S., on July 16th, and the first case of yellow fever occurred on July 24th. Other cases occurred at short intervals, and the attack terminated at the end of August, when three fatal cases occurred, after the ship had arrived at Plymouth, England. Here details[2] show that the outbreak was a peculiar one. That the leaky condition of the ship, by washing dust into her bilge, was connected with the subsequent development of yellow fever in her there is no reason to doubt; but where the additional factor was acquired that determined the soil so formed to give out emanation productive of yellow fever, whether at San Juan, or Port Royal, or Havana, or at any intermediate point, is not so clear. What is certain is that no case of the disease from another source had been on board, nor had any of those who landed from her, or communicated with the Spanish ship at the last named port, contracted the disease before it appeared in the ship herself among persons who had not been out of her, and, during its progress the marines and men employed below were the

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[1] Report on fever in the United States steamship "Susquehanna," by R. J. Macroom, M. D., in *American Journal of Medical Science*, vol. xxxvi, pp. 321–28.

[2] Derived from the journal of the Surgeon of the "Orion," which the Director-General of the Naval Medical Department, Sir John Watt Reid kindly allowed me to peruse, and from the "Statistical Report on the Health of the Navy for 1857," pp. 39–40.

principal sufferers, which indicates the disease depended on a cause within the ship herself, to which these men were more exposed than others. The sudden outbreak of the severe fever on the 24th and 25th of July, followed by single cases at intervals, and at last by three fatal cases at Plymouth in the end of August, is worthy of observation; this possibly may have arisen from the temporary accumulation of water in the intervals (as alluded to by the surgeon) sufficient to cover the source of the disease more or less, and so prevent it giving off the morbific matter. It used to be a common remark among seamen formerly that a leaky ship was a healthy one, but to ensure this result the water accumulated in the bilge was always considerable and seldom pumped out completely.

Extending this inquiry to localities on shore, the succession of epidemics at Bermuda present the facts in a form that admits of the question of importation being satisfactorily disposed of. The histories of the epidemics of 1818–19, 1837, 1843, 1853, and 1856 were carefully examined by the late Sir William Smart, when he was in charge of the naval hospital at Bermuda, and had access to the records left by his predecessors in that office, and to those connected with the naval and civil establishments in the island, and he submitted a paper to the Epidemiological Society embodying the result of his enquiry in March, 1863.[1] As in the case with such epidemics, there are always some persons who are under the impression the disease has been imported, and different individuals refer to different channels through which the importation might have been effected; the arrivals in Bermuda were not very numerous, and as the population, exclusive of the military and convict establishments, was only 11,453 in 1861, of whom about 4,500 lived in the two principal towns, St. George and Hamilton, and their vicinity, it was comparatively easy to find the localities in which the first cases occurred with the dates, as well as the dates of arrival of the various ships supposed to have introduced the disease. There were Government inquiries as well into the circumstances preceding and accompanying the epidemics of 1853 and 1856, of a full and searching character. There is not time to go into the facts set forth in these various documents fully on this occasion, but the conclusions arrived at by Sir William Smart and by the Commissioners, which seem fully borne out by the evidence they adduce, may be given. Sir William Smart says, "the origin of these outbreaks has always been attributed to 'importation,'

[1] Transactions of Epidemiological Society, vol. ii, p. 24.

but my investigations have impressed me with a conviction that in every instance that opinion is ill founded."[1]

The Commissioners, in their report on the epidemic of 1853, state with regard to importation:

"33. A very general belief is entertained in the community, and participated in by persons of much intelligence and experience of former epidemics, that this fever was imported from abroad. Without undertaking to affirm that yellow fever could not be so imported, the evidence in support of that opinion, as applied to this occasion, has not been such as to satisfy the Commissioners that it was so introduced; and this point is still left involved in much obscurity."[2]

The Commissioners who reported on the epidemic of 1856, after detailing the circumstances connected with the arrival of the three vessels inculpated, H. M. S. "Argus" and "Malacca," and the trader "Margaret Musson," state:

"16. We will now briefly state the conclusions at which we have arrived on the first and most important question, 'The Origin of the Epidemic.'

"We have concluded (with some doubt on the part of one of the Commissioners as stated in a note attached to this report), that the disease was not introduced by any of the three suspected ships, that it was not introduced in any '*ab extra*,' but that it originated in this colony."[3]

The member who dissented from the other Commissioners was Mr. Duncan Stewart, the Attorney-General. This gentleman considering the introduction of the disease as a question distinct from that of its first appearance, was impressed with the belief that the fever which affected the crew of the "Malacca," who were treated at Ports Island, late in June, may have remained dormant there during July, and soon after developed itself, and became epidemic on the main island distant about a mile from the quarantine station, and goes on to say "I apprehend that the germ of the late epidemic may perhaps be considered to have been derived from the "Malacca," to have existed at Ports Island, and gradually extended its influence to the opposite shore. I submit this view of

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[1] Transactions of Epidemiological Society, vol. ii, p. 27.

[2] Report of the Commissioners on the Yellow Fever in Bermuda, in 1853, p. 13, Parliamentary Papers, December, 1854.

[3] Report of the Commissioners on the Yellow Fever in Bermuda, in 1856, p. 6, Parliamentary Paper, March, 1858.

the question, however, rather to express the doubt which I entertain than as the result of positive conviction on the subject."[1]

There was another epidemic of yellow fever at Bermuda in 1864, and a Commission was appointed to investigate the circumstances connected with its origin and prevalence. The report embraces eighty paragraphs, dealing with the origin of the disease, its incidence on the various classes of the population, and in different localities, and the hygienic condition; but while giving the evidence on the subject does not deliver a specific answer upon the question of importation or local origin; but from the details it is clear the evidence is altogether in favor of its arising on the island, and not attributable to importation, as was found to be the case in previous epidemics.[2]

These facts show that the different epidemics of yellow fever in Bermuda, of which there are specific accounts, sprang up at different points in the islands without the previous introduction of persons laboring under the disease from elsewhere, as was previously shown to have been the case, not only in the "Susquehanna," and "Orion," in the West Indies, but also in the "Eclair," at Sierra Leone, and at Goree, on the coast of Africa. It is clear, then, that such an importation does not constitute a necessary factor in the development of the conditions required to produce yellow fever, while the immunity which follows more extensive importations of persons laboring under that disease in healthy localities, or during the healthy part of the year at those which are occasionally subject to it at the usual sickly season, go far to prove that this introduction has no influence in determining it. All that is known of the nature of the immediate exciting cause of yellow fever seems to indicate that it is particulate, and is given off from a collection of mud in a ship's hold, or from a marshy or damp spot on shore, with its pathogenic germs fully developed, but until it arrives at this condition the crews of the ships, as in the cases of the "Susquehanna" and "Orion," do not have any attacks of the disease. It would appear, therefore, that the potential factor must be diffused in a form incapable of giving rise to the disease until it met with a suitable soil for further development, and as in these two ships must have been air borne, there having been no other source from which it could have been derived. The

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[1] Report of the Commissioners on Yellow Fever in Bermuda, 1856, pp. 9–10.

[2] Report of the Commissioners on Yellow Fever in Bermuda, 1864. pp. 8–9, Parliamentary Paper, August, 1866.

course of the various epidemics at Bermuda quite accords with this view, and they show that the potential factor can be diffused by the air, even over very extensive geographical areas.

It appears that, from time to time, there is an increased activity of those factors which lead to yellow fever over a varying extent of the earth's surface, under the influence of which that disease becomes developed when local circumstances are suitable. The latter embrace the state of the weather, the condition of particular spots, often of very limited extent, the emanation from which engenders the disease in individuals exposed to it, while there are many points in their immediate vicinity where they may remain without risk, if only they avoid the emanation in question. The determining condition seems to be a certain amount of moisture in the soil at these points, whether supplied by rain or from subsoil sources seems immaterial. Too much water obviates the result, whether by checking the formation of the emanation, or preventing its diffusion has not been determined, while too little seems practically to prevent its formation altogether. On most of the occasions on which Bermuda has suffered yellow fever has extended along the Atlantic Coast of the United States to as high, or even higher latitudes than that of Bermuda, and it has appeared in Europe occasionally about the same time. The epidemics at Lisbon and Oporto, which commenced at those places to a limited extent in 1856, and were developed to a much greater one the following year, correspond with this of 1856 at Bermuda. Both had arisen under the extension of the same pandemic wave which was experienced at Monte Video in 1853, the progress of which northwards was traced in a previous lecture. Of the outbreaks at Lisbon, Dr. Lyons states:

"After most careful inquiry among various official persons, and in all quarters in which reliable evidence could be expected in such matters, I am obliged to state that in no one instance did I obtain such a consistent assemblage of facts, or such an array of well supported allegations as would, in my mind, warrant the conclusion that the importation theory was even moderately well founded."[1]

So that the Lisbon epidemics arose under similar circumstances to those described above in the West Indies and Bermuda.

To arrive at the conclusions stated above I have made use of illustrations that presented the evidence on each point in a clear

[1] Lyon's Report on the Pathology, Therapeutics and General Etiology of the Epidemic of Yellow Fever which prevailed at Lisbon during the latter half of this year, 1867, p. 6, Parliamentary Paper.

and precise form, and I trust I have not pushed my inferences beyond what the facts bear out. Much of the evidence relied on by controversialists in this question is so involved as to defy trustworthy analysis, and deductions from theories, which themselves required to be proved, have been too often employed to supply conclusions which could not be established from the facts of the case. Such a system must be abandoned before any real progress in epidemiology can be made.

ANTISEPSIS IN OPHTHALMOLOGY.

By Wm. Ellery Briggs, M. D., Sacramento, Cal.

Read before the Sacramento Society for Medical Improvement.

The converts to a new theory often injure the cause by too eager and enthusiastic advocacy, while the skeptical condemn without doing themselves the justice of examining the facts presented in its support. This is true in regard to the history of antiseptic surgery. At this late day, however, I deem it a work of supererogation to defend the principles of antisepsis in general surgery. The experience of all practical men, from the most eminent who are connected with large clinical wards to the most obscure workers at some country cross-roads, has demonstrated the inestimable value of antiseptics. If there is any one practice more essential to the success of a general surgeon than the carrying out of antiseptic precautions, I am unaware of it. There is still room for discussion in regard to which are the most valuable antiseptics or the methods of their application. I believe the surgeon who does not use all reasonable precautions to keep extensive wounds free from pyogenic germs is guilty of criminal carelessness; or, what in its results is the same, unreasoning incredulity.

The few eminent men who claimed that clean surgery was as efficient and safe as antiseptic surgery, are gradually falling into line and applying antiseptic dressings with as much regularity and care as the early converts to this theory of wound treatment. The simplification of the methods of dressing and the readiness with which the essential details are now carried out have been large factors in the rapidity with which it has been taken up by the profession. The domain of legitimate surgery has been extended under antiseptic methods to include operations which were, previous to Lister's brilliant experiments, with good reason, deemed unjustifiable. Who can estimate the number of useful lives that

have been rescued from death by septicemia or pyemia since antiseptic treatment has been extensively resorted to?

Although Lister was the first surgeon who used germicidal dressings with a knowledge of their properties and a rational explanation of their beneficial effects, they had been employed as surgical dressings many centuries before his time. It is recorded that a traveler in by-gone times fell among thieves, who wounded him grievously and that a certain Samaritan "bound up his wounds, pouring in oil and wine."

The modern Samaritan uses a less expensive and more efficient antiseptic than wine, but his compassion is none the less sincere when he binds the wounds of the poor wanderer who may have fallen among thieves in the solution of the corrosive chloride of mercury.

In the field of ophthalmic surgery antiseptic precautions were rather tardily adopted. It has taken some time to demonstrate that a great number of diseases, as well as grave inflammations after operations, were due to pyogenic germs, and it was considered more difficult than experience has proved it to be, to disinfect the eye and its appendages.

Knapp was among the first to prove almost to a mathematical certainty (*Archives of Ophthalmology*, March, 1886) the relation which pathogenic micrococci bear to certain ocular inflammations. In Berlin he experimented with pyogenic microbes to ascertain how a pure wound differed in its healing process from an infected wound. In his experiments on rabbits' eyes, he first made an aseptic operation on one eye, using however, no chemical agents, but operating on a clean, healthy eye, with clean hands and instruments, and, after the operation, leaving the eye alone without a bandage. The other eye was operated upon in exactly the same way, and consequently subjected to exactly the same traumatism, but inoculated one way or another, with a pure culture of bacteria. In so doing he imitated the chief operations that are practised on the human subject, and all eyes operated on aseptically recovered, whereas almost all of those infected with the above mentioned microbes were lost by suppuration, only those getting well in which the operations had been superficial and limited.

The first experiments were made by introducing pink yeast fungus into the wounds of four eyes and all healed without suppuration. All of the wounds infected with it healed in the same way as the aseptic operations done on the fellow eye. This showed that the fungus of the pink yeast is not pyogenic.

In the next series of eighteen cases he inoculated the wounds with pyogenic organisms. Injection of a drop of an emulsion of pyogenic cocci in the anterior chamber of the first two eyes experimented on was immediately followed by the most intense primary suppuration in the anterior chambers, with purulent maceration of the cornea and internal parts of the eye. One animal died on the sixth day, the other recovered. Under the microscope and by cultivation, cocci were discovered in the pus, the cornea, and inner membranes; besides this, cultures were developed from the optic nerves, the chiasm, one optic tract, and lens of the other eye, though he did not succeed in demonstrating cocci microscopically in these and other parts of the body, nor in the blood. One case of discision with an infected needle was followed by severe suppuration in the track of the needle and loss of the eye. It was evident from this fact that, under certain conditions, the quantity of infecting material may be small, the traumatism insignificant, and yet the suppuration extensive. Dr. Knapp believes that pyogenic germs may remain dormant in the humour, iris or other tissues of the eye the traumatism often being one of the conditions favorable to suppuration by forming a *locus minoris resistentiæ*.

There were three cases in which the prick of an infected needle caused inoculation and circumscribed corneal abcesses. There were three negative results in his experiments which he thinks were due partly to variable susceptibility of the subjects, to the cocci or to the smallness of the quantity of infecting bacteria.

The importance of thorough cleansing of instruments is made manifest by the following experiment: the right eye of a rabbit was lost by primary suppuration after extraction of the lens with a Graefe knife that was contaminated with the bacteria of osteomyelitis. The lens of the left eye was extracted with the same knife, though after the operation on the right a stream of hydrant water had been running over it, produced a suppuration no less intense. It is necessary to have highly polished instruments and they should be well washed and rubbed thoroughly dry. Four cases of cataract extraction, in which the wound was infected, all suppurated. Two cases of extraction were performed after introducing pyogenic germs into the conjunctival sac; in one they were introduced sparingly and the wound healed without interruption; in the other an emulsion of staphylococci was freely introduced into the sac and on the edges of the lid an intense suppuration followed the next day.

Michel [1] has been one of the most active in the study of bacteriology as a factor in eye diseases. At the Wurzberg physical medic. Gesellschaft, June, 1886, he exhibited cultures of the diplococci developed in peptonised gelatine solution from secretion pressed out of the trachoma follicle. These cultures resembled gonococci, but were much smaller and required a high power (Zeiss $\frac{1}{18}$) to be distinctly seen. The cultures introduced into rabbits' eyes produced only transient conjunctival congestion, but introduced into the human conjunctiva it produced typical trachoma follicles. Later the same author [2] had an opportunity to study the pathogeny of trachoma more intimately during an epidemic in a boys' orphan asylum. Among 97 inmates 14 were severely attacked and 55 had the disease in a milder form. He found rods (cocci) in several cases which did not seem to possess pathogenic power. He found the diplococci cultivated from cases in the epidemic resembling those which he had previously described. The experiments with the germs in rabbits' eyes verified his former experiments and in man they produced the typical follicle. The cocci were in collections of from ten to twenty which were found mostly in the centre of the follicle. The author thinks that in the history of trachoma, the microörganisms penetrate through abraded epithelium or perhaps even normal epithelium and neighboring tissues producing hyperplasia of the lymph follicles which eventually results in the trachoma follicles. It cannot be doubted that the changes present a resemblance to those which tubercle bacilli produce and in later stages of severe cases more intimately resemble.

Dr. J. Kucharsky made extensive researches [3] to determine the influence of the diplococci of Sattler and Michel in trachoma follicles. His experiments from inoculation with the culture cocci were negative, and he arrives at the conclusion that trachoma is a conjunctivitis *sui generis*. His results contradict in most particulars those obtained by Michel.

Priestly Smith reports [4] a case of meningitis, after enucleating an eye with panophthalmitis. Thirty-six hours after the operation symptoms of meningitis appeared. These symptoms were much ameliorated after syringing the wound out with Condy's fluid and warm water. Nine weeks later patient had entirely recovered.

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[1] Klin. Monatsblätter f. Augenheil, May, 1886.
[2] Arch. f. Augenheil. Bd. xvi.
[3] Centralblatt f. pract. Augenheil.
[4] Ophthalmic Review, vol. iv.

He also reported two cases of fatal meningitis after enucleating panophthalmic eyes. The author believes these unfortunate results can be averted by thorough antiseptic treatment and that when these cases are treated in that way that panophthalmitis need not be a barrier to enucleation.

Dr. Widmark of Norway examined[1] twenty-five cases of blenorrhoea neonatorum. In nineteen of these gonococci were present, and in six absent. The corneæ were affected in eight cases in which they were present, in two the corneæ were perforated when first seen. All of the six cases in which gonococci were not found passed through a mild course without corneal complications.

Prof. Guaita describes[2] his favorable results with bichloride of mercury in the various infective eye diseases. In blenorrhea neonatorum he uses nitrate of silver mornings, applied with a brush, washing out the conjunctival sac with bichloride (1:7000) every two hours, application of bichloride (1:500) with the brush, evenings. After eight or ten days, discontinues nitrate and uses bichloride less frequently. As prophylaxis in the new born he uses sublimate solution 1:500 instead of nitrate of silver. In croupous and diphtheritic ophthalmia he applies it with the brush in the strength of 1:400. In granular conjunctivitis, as well as in the follicular variety, he says that the sublimate acts almost like a specific. In the latter disease he uses the bichloride 1:500 with the brush daily and irrigates the eye three or four times daily with a 1:7000 solution. In the chronic form he uses (1:400) with brush.

Dr. Adolph Alt reports[3] results with the sublimate in most infective eye troubles similar to those reported by Prof. Guaita. In phlectenular keratitis and parenchymatous keratitis he found it did not do so well. It was found to be the only treatment necessary in many of the diseases known to be due to microörganisms.

Panas was the first to irrigate the anterior chamber with antiseptic fluid after cataract extraction. Those of extensive experience are still divided as to the advisability of this procedure.

Dr. Wecker believes in washing out the anterior chamber but does not use antiseptic solutions.

Dr. J. B. Weeks contributed a very valuable paper to the New York Academy of Medicine[4] describing the results of experiments made by him with a view of determining how necessary antiseptics

[1] Supplement to Centralblatt f. pract. Augenheil.
[2] Annali di Ottalmologie.
[3] American Journal of Ophthalmology.
[4] Archives of Ophthalmology, vol. xvi., p. 375.

are in ophthalmology, their relative values and qualities, the irritant or non-irritant qualities of these remedies upon the conjunctiva and cut surfaces, and the best method of sterilizing instruments. Staphylococcus pyogenes was found three times in 120 eyes of children, and in 65 cataractous eyes it was found ten times. In eight of the latter extraction was performed with three cases of suppuration, with total loss of one eye, within 48 hours. The other two recovered with partial opacity of the cornea, but with some vision. In the cases operated upon, where no pyogenic germs were found, no trouble was experienced from septic infection. The normal human conjunctiva resists many pyogenic germs, but if the epithelium be abraded or other pathological conditions exist, trouble is very likely to result Dr. Weeks, therefore, concludes that since destructive germs are frequently present, and their presence cannot be determined in all cases by simple inspection, it becomes necessary to employ antiseptics in all cases requiring operative procedure.

To test the antiseptic values of topical remedies he employed staphylococcus pyogenes for the reason that it is the most common pyogenic germ, and is probably the cause of nine-tenths of the suppurative processes. They were cultivated from eczematous pustules or vesicles on the face or lids. When these germs were introduced into rabbits' eyes, suppuration with destruction of the eye always followed. Most of the remedies were tested in various strengths, such as might be applied to the conjunctiva with safety. Solution of bichloride of mercury 1:500 destroyed vitality in an exposure of ten seconds; 1:1000, forty-five seconds; 1:5000, three minutes; 1:20,000, twelve to fifteen minutes. A solution of 1:4000 or 1:5000 may be dropped into the eyes of most patients without causing irritation. Panas' solution, which is composed of biniodide of mercury 1 part, absolute alcohol 400 parts and water 20,000 parts, was found to require from two to three days to destroy the staphylococcus. Other salts of mercury were found much less effective than the bichloride. Nitrate of silver solutions of 1:10 destroyed vitality in four seconds; 1:100 in twelve seconds; 1:1000 in four minutes. It is thus seen that in solutions that cause but little irritation it is one of the most efficient germicides.

Salicylic acid solutions of 1:600 destroy vitality in one minute; 1:1000 in four to five minutes. In the above strengths it is quite acid and liable to irritate the conjunctiva. Permanganate of potash is an active antiseptic, but is quite irritating to the conjunctiva. Carbolic acid 1:20 destroys vitality in fifteen seconds; 1:60 in four

minutes. Solutions strong enough to be germicidal are too irritating to be freely used on the conjunctiva. Absolute alcohol destroys vitality in from four to twelve seconds; 90 per cent. in twenty to thirty seconds. This is also too irritating to use on the conjunctiva in a strength to be germicidal. Chlorine water is one of the most efficient antiseptics, and is but slightly irritating; it, however, lacks stability. Hydrogen dioxide, when fresh, destroys germs in one to one and a half minutes. Boracic acid has no germicidal qualities. In saturated solutions germs lived ten days. According to Sternberg it prevents germ development. Many other drugs were tested, but none were found to be of use in ophthalmology.

For the sterilization of instruments, carbolic acid 1:20 or 1:40, or alcohol, either absolute or 95 per cent., or salicylic acid, are the best reagents. Exposure to a temperature varying from 52° to 100° C., will destroy microörganisms. Instruments put into water from 90° to 100° C., can be sterilized without injury. The instruments should be well rubbed after other methods of sterilization have been practised.

In conclusion, I will add that many ocular diseases are dependant upon the presence of specific microbes, while there are many others of which we can only say that this is probably true. Time and experience will be required to clear up much that is at present only obscurely seen or half demonstrated. The extensive researches of Knapp, Weeks and others have done much in support of the proposition that bacteria are the active factors in causing suppuration after eye operations. Those operations done aseptically all healed without the formation of pus, while those in which pure cultures of pyogenic germs were introduced were nearly all followed by extensive and destructive suppuration. In the air there are pyogenic as well as non-pyogenic germs. It is not easy to determine to which class these germs belong, as those which, under certain conditions seem harmless, under conditions more favorable to their development, prove virulently destructive. Rabbits' eyes have usually been utilized to experiment upon, but in these the effects of germs are not uniform with those on human eyes. For instance, the gonococcus, which causes destructive suppuration in the human eye, is almost harmless when inoculated upon rabbits' eyes. The local condition, as well as the state of the subject's health, may influence the pathogenesis of the germs.

From the fact that suppuration after cataract extraction has been so largely reduced under antiseptic precautions, it is reasonable to

conclude that such suppurations had often been the result of septic infection. Again, since Credes' method of treating the eyes of the new born has reduced the number of cases of ophthalmia neonotorum in large lying-in wards from a high percentage to almost *nil*, is strong practical evidence of the value of antisepsis in ophthalmology.

Phlyctenular conjunctivitis is believed to be of germ origin, and it is suggested that the beneficial effect of calomel is due to a portion of it being changed by the saline tears to bichloride of mercury.

Ulcus corneæ serpens has been a dreaded and destructive disease, and many believe it to be caused by germs. Treatment of the disease with this view of its origin has been more successful than the older methods of dealing with it.

The experience of all ophthalmic surgeons teaches that operations upon eyes in which there is purulent secretion from the lachrymal apparatus, are dangerous. It is not, I think, straining a point to conclude that these disasters are the result of septic infection by germs contained in this pus.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By Wallace A. Briggs, M. D., Sacramento, Cal.

Hemorrhoids During Pregnancy, Labor and Childbed.—Professor Budin prefers Duret's division of the hemorrhoidal vessels into internal and external, the former corresponding to the superior and the latter to the middle and inferior hemorrhoidal of the old classification. A varicose condition of the corresponding vessels constitutes internal and external hemorrhoids respectively. Opinions differ as to the frequency of hemorrhoids in pregnancy. "Of 300 pregnant women examined at the maternity and clinic, I determined the presence of hemorrhoids in 18. As Laroyenne and Cozin have remarked this is probably below the ratio that would be obtained in private practice, where a rich diet and comparative inactivity predispose to this condition. The direct causes during pregnancy, are: Enlargement of the uterus, interfering with the venous circulation of the rectum; a physiological increase of vascular tension in the pelvis; constipation and the tenesmus to which it gives rise. During labor hemorrhoids come on from violent straining and the pressure of the presenting part of the fetus. They generally disappear in a few days or hours, but sometimes persist. In certain cases hemorrhoids do not make their appearance until after delivery, sometimes as late as the third or even the eighth day. They are then due to constipation. Strangu-

lation is a frequent and important complication of external hemorrhoids, and is often accompanied by great pain and depression of the vital powers. Although, in the puerperal period, external hemorrhoids are more frequently observed than internal ones, the latter are by no means incapable of producing accidents. Besides hemorrhage which, on superficial examination, may simulate abortion, coagulation and consecutive inflammation may develop, and, were it not for the location of the pain, might be confounded with the strictly puerperal accidents. Confusion of hemorrhoids with fissure would be less inexcusable, but may be easily avoided by careful examination, especially by the aid of Tarnier's method of eversion of the rectal mucous membrane. To prevent the development of hemorrhoids in pregnancy the bowels should be kept regular by diet as well as by laxatives. Prescribe moderate exercise, baths, enemas, and, if the constipation persists, laxatives by the mouth. Tanner extols castor oil for this purpose, while Fordyce Barker condemns it, and recommends aloes. These extremes indicate that the important point is to relieve the constipation; by what means is of little consequence. For my part I have been content to use sodium sulphate in doses of from 10 to 20 gm. repeated as necessary." If hemorrhoids have already developed, constipation should still be combatted in order to prevent complications. If pain is severe the patient should remain in bed. Leeches have generally been abandoned, at least during labor and childbed—they open the door to infection. Water, at a temperature of 50° C. (122° F.), relieves both the congestion and the pain. After defecation cleansing lotions should be used instead of paper. The risk of hemorrhage may thus be avoided. In labor, rupture of the perineum, which might extend to the varicose hemorrhoidal vessels, should be prevented by carefully guiding the movements of the fetal head and, if necessary, by mediolateral episiotomy. Strangulated hemorrhoids should be returned and kept in place by compress and T bandage. Pain should be relieved either by cocaine, iodoform or morphia.— *Progrès Médical*, March 3, 1888.

Symptomatology and Treatment of Puerperal Eclampsia. — STUMPF has observed 27 cases of this disease, 20 of which occurred during pregnancy—3 in the tenth month, 6 in the ninth, 6 in the eighth, 3 in the seventh, 2 in the fourth. In the other seven cases eclampsia broke out during labor. Of the 27 cases, 21 were primiparæ, and in the majority of cases the patients were strong, robust and previously well. Albuminuria was never wanting—in one case reaching 2.5 per cent.—and, as a rule, it increased on the appearance of convulsions and diminished rapidly on their cessation, the daily secretion of urine markedly increasing at the same time. Besides albumin, the author demonstrated the presence of sugar in the urine of every case. This generally made its appearance before the outbreak of the convulsions, and rapidly disappeared after their cessation. The urine was also strongly acid and, in some cases, contained leucin and tyrosin. If the temperature does not fall with the subsidence of the eclampsia the prognosis is unfavorable. Without exception, the temperature fell abruptly to the normal when the disease terminated in recovery. The author calls attention to multiple subcutaneous hemor-

rhage, cutaneous hyperesthesia and considerable increase of the patellar reflex. Profuse diaphoresis induced by hot baths, followed by the hot pack, is the most important therapeutic measure. On account of its weakening the heart pilocarpine should be stricken from the list of remedies used in this disease. The treatment of the paroxysm itself consists either in enemata of chloral hydrate (gm. 1 to 2) or in the inhalation of chloroform. The author regrets the induction of premature labor in the treatment of eclampsia.—*Münch. med. Wochenschrift—Centralblatt f. klin. Medicin.*

SURGERY.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Co's Hospital, Sacramento, Cal.

Lateral Dislocation of the Axis Without Spinal Symptoms.—Following a fall on the head, the subject, a soldier, complained of persistent stiffness of the neck. After a searching examination, M. ANNEQUIN made the diagnosis of left lateral subluxation of the axis, notwithstanding the absence of spinal phenomena. The case is rare, but possible, and M. Annequin mentions several examples. Though these cases have not always been verified by *post-mortem* examination, still, in this instance, the diagnosis has been sustained by the faculty at Lyons. The negative results of this injury are remarkable, the only apparent sign being a slight deformity and the presence of an anomalous prominence in the pharynx and at the nape of the neck.—*Gazette des Hôpitaux*, February 28, 1888.

Igneous Arthrotomy as a Substitute for Resection.—M. VINCENT proposes this operation in white swelling of the knee. He makes an incision 10 to 15 cm. in length on each side of the affected joint. When this is opened he retracts the patella with the parts attached to one side, and flexes the limb. The interior can thus be readily inspected. If the synovial membrane only is implicated he scrapes the fungosities and then cauterizes them with the iron at a red heat. If the bone is affected he gouges out the diseased structures. After this precaution if the case is a grave one he again cauterizes the joint with a large cautery. The limb is placed in extension, the patella and structures attached are raised and the soft parts being protected he passes the iron over all parts of the articulation. The joint is then drained transversely and antero-posteriorly by an opening between the condyles. This is absolutely necessary for efficient removal of tissue *débris*. The joint is also filled with iodoform gauze, steeped in bichloride solution. All the cases so far treated have recovered after a variable length of time. M. Vincent has already had considerable experience, and he claims that his results are as good as those from resection, while the subsequent growth of the limb is not interfered with. He has more frequently noticed increased instead of diminished growth. He presented one case in which the lengthening amounted to 6 cm. and was evenly distributed between the tibia and femur. In a second case, in which he had used the cautery freely, and

scraped out the internal condyle of the femur quite deeply, there had been perfect recovery without anchylosis. He concludes that this treatment will usually cure as quickly as resection, without shortening, arrest of growth or muscular atrophy, and very frequently without anchylosis. In the cases in which lengthening has been observed, he believes that this is only a temporary condition, and that the limbs will ultimately equalize.—*Lyon Médical*, February 26, 1888.

A Case of Ileus Cured by Puncturing the Gut.—WENTSCHER reports the case of a man, 42 years old, who had suffered for ten days from obstinate constipation, the cause of which was unknown. The abdomen was much swollen, tender over its whole extent, but not particularly painful at any point. On admission the patient had stercoraceous vomiting. Puncture into a well marked and prominent portion of the intestine with a fine trochar permitted the escape of offensive gas, followed by a teaspoonful of dark fluid, with fecal odor. As a result of the operation the abdomen became much less distended, and markedly softer. In the evening 800 gm. of dirty, sour fluid was removed through a stomach tube. Twelve hours later the patient had the first stool, from which time convalescence was undisturbed. The cause of the obstruction was not discovered.—*Centralblatt f. Chirurgie*, March 17, 1888.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M. D., Sacramento, Cal.

Partial Resection of the Larynx.—DR. MOLLIÉRE reports a case (*Lyon Médical*) in which he performed partial resection of the larynx. When the patient first consulted him two months previously he was troubled by fits of dyspnea. Laryngoscopic examination revealed a large tumor which appeared to be malignant. The patient refused the treatment proposed and left, to return again on the fourth day, having had, meanwhile, a severe attack of dyspnea. Partial ablation was decided upon with complete excision if it was found necessary. Dr Molliére first performed tracheotomy, introducing a Trendelenburg tube. Ether was the anesthetic employed. After making the incision over the thyroid cartilage and passing the finger through the thyroid membrane he made traction on the tumor, which he was able to dissect out. It was necessary to divide, layer by layer, about a third of the left thyroid cartilage to spare the insertion of the cord. He regards ablation of the larynx as a simple operation. The electric lamp was employed most successfully, and he was able to remove the entire neoplasm. On the evening of the operation the patient was fed by an esophageal tube, but after that he was able to eat as usual. The patient had neither fever nor dyspnea. The tracheal tube was removed on the twelfth day. The patient may be regarded as cured. He has one normal cord while the other is cicatricial. He speaks in a husky and loud voice. The tumor was an epithelioma, about the size of a nut.

Paralysis of Accommodation and Anesthesia of the Skin near the Eye, an Initial Symptom of Tabes.—M. GALEZOWSKI presented to the

Paris Biological Society the above mentioned subject, and said that the paralysis of accommodation in cases seen by him was unaccompanied with any change in the condition of the pupil. In the neighborhood of the eye the skin was anesthetic to touch. Charcot, who also saw the cases, noted a diminution of the knee symptoms. There was no doubt in his opinion that the patients were suffering from commencing tabes. An early diagnosis, as was possible in the cases examined, is of practical importance for timely treatment by friction, as described in recent literature, can retard further the progress of the disease. Brown Séquard believes that the early appearance of accommodative paralysis in tabes indicates that it is of syphilitic nature, and M. Galezowski states that tabes is in a great majority of cases of syphilitic origin. However, to prevent the further progress of the disease we must not content ourselves with the ordinary antisyphilitic treatment, but immediately, upon the first appearance of symptoms apply general inunctions daily during two years. In this way grave eye disease, as for instance syphilitic choroiditis may be cured after other treatment has failed.—*Centralblatt f. pract. Augenheil.*

DERMATOLOGY AND VENEREAL DISEASES.

By G. L. Simmons, Jr., M. D., Sacramento, Cal.

A Case of Spontaneous Gangrene of the Penis.—Dr. Troisfontaines reports a case of this affection in the *Annales de la Société Medico-Chirurgicale de Liège*, March, 1888. The subject, a young man, was healthy, of good family history and living under satisfactory hygienic conditions. June 6, 1887, without any apparent cause, he became aware of a pricking sensation in a limited space, on the dorsal aspect of the penis, close to the glans. There was no alteration in the appearance of the structures. The pricking sensation increased to lancinating pain and the prepuce became edematous as far as the seat of pain. The following day the pain and swelling had greatly increased, and by the 10th there was considerable sanious discharge from the preputial orifice of a very fetid character. The physician who saw him believed that he was suffering from a malignant balanitis and prescribed appropriate treatment. Dr. Troisfontaines on seeing the case recognized the gangrenous odor of the discharge. The penis, for its anterior two-thirds, had become enormously enlarged, measuring over 19 cm. in circumference. The pain was very great, the inguinal glands were involved and his general condition was bad. At the point where the pain had first appeared, was a bluish white area, cold and insensitive, the anterior portion of the prepuce was discolored on its dorsal aspect. He immediately divided the prepuce as far as the gangrenous spot and subsequently prolonged the incision almost to the root of the organ. It was then apparent that the gangrene involved the fascia and cellular tissue extensively and that the destructive process had excavated the corpus cavernosum in which several blood clots were found. The gangrenous tissues were removed with the scissors, the wound irrigated with a disinfectant solution and a dressing of charpi and iodoform applied. The local and general condition at once improved and there was no further extension of the disease. When the parts had healed

there was a depressed transverse cicatrix, fixing the prepuce to the penis at the coronal furrow causing the organ to curve slightly upwards but not interfering with erection or copulation. Dr. Troisfontaines offers no explanation of the etiology of the disease, but believes that these cases deserve a special classification.

Treatment of Parasitic Skin Diseases.—Dr. Porlschritt speaks of this method, based upon the more intimate penetration into the skin, of medicines applied by the positive pole of a constant current. The sponge attached to this pole is steeped in a weak alcoholic or ethereal solution of the remedy which is to be applied. The electrode is held upon the affected surface several moments. Reynolds has, in this way, by the use of a weak solution of sublimate, promptly cured a case of favus and two of herpes.—*Medical Register*, March 17, 1888.

MATERIA MEDICA AND THERAPEUTICS.

By Wm. Watt Kerr, M. A., M. B., C. M., Professor of Therapeutics. University of California, San Francisco

Chloral in Diphtheria.—*The Am. Jour. of Med. Sciences* for March, 1888, states that Dr. A. Mercier, of Besançon, has utilized with remarkable success the antiseptic action of chloral in the treatment of diphtheria. The dose is one-half teaspoon full to one teaspoon full and a half of the French syrup every half hour until the false membrane is dissolved or disappears, which generally happens about forty-eight hours after the treatment has been commenced. No drink or food should be given for some time after each dose of the chloral, so that the drug may remain in contact with the throat mucous membrane. This French preparation is a twenty per cent. solution of chloral in syrup so that the dose is from six to eighteen grains every half hour. [We would remind our readers that this method is not new, for in 1884 Vail & Co., N. Y., published a monograph by Dr. C. B. Galentin entitled "Chloral in Diphtheria and Croup." in which the use of chloral locally as a spray, and internally in frequently repeated doses was strongly urged. Dr. Galentin based his views upon a use of the drug for six years, during which time he treated over five hundred cases with a mortality of less than two per cent. We have been surprised that in the face of those really magnificent results obtained by Dr. Galentin no further reports have reached us from other sources, but perhaps now, since other methods come back to us adorned in European habiliments, American physicians will be willing to try it.

The Action of Aniline and Oleum Gaultheriæ.—Dr. Ischirwinski draws the following conclusions from a series of experiments with the above drugs: 1. Aniline and oleum gaultheriæ have a toxic effect when introduced into the system. 2. Both drugs have a predominant effect on the respiratory centre, making the blood venous. 3. Oleum gaultheriæ resembles salicylic acid in its action on the heart. 4. Aniline is more toxic than oleum gaultheriæ. It affects the respiratory centre, the heart muscle, the cardiac inhibitory apparatus and the spinal cord. 5. The

volatility of oleum gaultheriæ explains its readier action on inhalation.—*New York Medical Journal*, March 24, 1888.

Cocaine applied locally in Vomiting of Pregnancy.—Dr. William Duncan reports three cases of vomiting in pregnancy successfully treated by painting the vault of the vagina and the lower part of the cervical canal with a fifteen per cent. solution of cocaine. In two cases the cervix was sensitive on pressure. The report is only made at this time to entice other physicians to try the method and report results so that its therapeutic value may be established.—*New York Medical Journal*, March 24, 1888.

Hydro-bromate of Hyoscine in Recurrent and Chronic Mania and as an Hypnotic.—The reports concerning this drug are still favorable. Dr. Thompson, Bristol Insane Asylum, states that it is most valuable in chronic and recurrently chronic mania, and is given hypodermically in doses of $\frac{1}{200}$ gr. Dr. Erb prescribed the drug in the night sweats of phthisis, but had to abandon it as the necessary doses produced too much general disturbance. In hypodermic doses of $\frac{1}{250}$ gr. it diminishes the tremors of paralysis agitans, but the improvement only continues during the administration of the drug.—*Therapeutic Gazette*, March 15, 1888.

MEDICINE AND PATHOLOGY.

By Albert Abrams, M. D., Demonstrator of Pathology, Cooper Medical College, San Francisco, Cal.

The Course and Prognosis of Pneumonia.—According to C. Leibermeister, the mortality in a typical case of pneumonia ranges between 3 and 10 per cent. In asthenic forms the mortality as a rule is 20 per cent., and may in certain localities and seasons attain 40 per cent. or more. In those addicted to the use of alcohol, in very obese individuals, and further, in those who have reached the senile period of life, the prognosis is bad, owing to the diminished resistance of the heart. Death can occur in any stage of the disease, particularly in the stage of gray hepatization. Determining the cause of death is of great practical importance. In a few cases the anatomical examination readily reveals the cause. In double pneumonia the extensive infiltration by diminishing the respiratory area causes death by suffocation. This simple explanation holds good only for the minority of cases. Suffocation only occurs when more than one-half of the pulmonary surface is involved. He believes death to be due in the majority of instances to pulmonary edema in the non-infiltrated portions of the lung tissue. This edema is usually considered to be an active edema. Owing to an interference with the circulation in the affected areas, the blood pressure in the unaffected portions is increased, leading to a transudation into the alveoli. He considers that an active pulmonary edema cannot occur as long as the heart remains strong. The edema which occurs is passive and dependent on a weakened heart. An atony or paralysis of the heart, occurring so frequently in pneumonia, is referable to a number of conditions. The fever conduces to cardiac degeneration and functional insufficiency. There must also

be taken into consideration, the compression of the blood vessels by the infiltrated lung, which seriously interferes with the pulmonary circulation. The right heart can only oppose this increased resistance by increased work and must eventually succumb to the ordeal. Respiration is virtually an interchange of gases in the blood and atmosphere. If too little blood be pumped by the right heart into the lungs, then an interference with respiration occurs. This is further supplemented by edema which mechanically opposes the entrance of air into the alveoli. Rarely does brain paralysis, dependent on the fever, cause death in pneumonia. Those cases of pneumonia showing a compact infiltration from the incipiency of the disease, generally run a favorable course. This is readily appreciated when we consider that a slow development of the infiltration suggests an asthenic, a rapid, an asthenic form of the disease. Death is often due to complications. Acute fibrinous pneumonia often passes into the chronic form. The exudation is not absorbed, but remains in the alveoli. It may remain unchanged for a long while, finally becoming partially or completely absorbed. This protracted reabsorption occurs in the weak, and in those who have had repeated attacks of the same affection. During the period of delayed resolution a proliferation of the pulmonary connective tissues can develop, leading to a condition termed chronic interstitial pneumonia or cirrhosis of the lung. An atelectasis of a considerable portion of lung tissue must be the necessary consequence of this latter condition. In other instances the exudation never undergoes absorption, but becomes metamorphosed into caseous material, resulting in the formation of cavities. This latter condition is often assisted by a disposition to tuberculosis. A rare termination is in the formation of pulmonary abscesses. This occurs when a circumscribed portion of the lung in a state of purulent infiltration, is not absorbed. Pyogenic microbes may play an important part in their formation. If the patient does not die, which is usually the case, then the abscess perforates the bronchus, pleura or thorax and the cavity resulting may cicatrize. Pulmonary gangrene and usually the diffuse form occasionally terminates a pneumonia. The infiltrated lung tissue is by inflammation and retarded circulation supplemented by an atonic heart readily disposed to necrosis and all that is necessary are the germs of putrefaction. The following case illustrates this: A man engaged in cleansing a sewer suddenly got a chill and was for a long time prevented from leaving the latter place. Pneumonia with gangrene followed. At the hospital at Basel, Liebermeister met with 230 cases of pneumonia and only in 4 cases did gangrene supervene, followed invariably by death. Other complications, accidental in character, are cited, not peculiar to this disease.—*Deutsche med. Wochenschrift*, March 1, 1888.

Sacramento Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: MAY, 1888.

THE MEETING OF THE STATE SOCIETY.

The eighteenth annual meeting of the State Society was certainly the most successful that has ever been held. The number of members attending was large, over two hundred having registered, and the attendance at the various sessions was above the average. For this, and for the accession of about sixty new members, the thanks of the Society are due to the President, Dr. R. H. Plummer, who has made the success of this meeting a question of untiring personal effort. His address, as was expected, dealt mainly with the profession in California—its past history and present status—and the valuable recommendations contained therein were well received by the Society. Several excellent reports were read and the interest manifested by the large audiences, even at protracted sessions, testified to their appreciation. The appointment of members to open the discussions proved to be a most valuable feature and met with general approbation—in fact this innovation, more than any other, contributed to the general success. This procedure having been persistently advocated by THE TIMES, it was incumbent that measures should be taken to place the criticisms of the various speakers permanently upon record. We have, therefore, much pleasure in directing the attention of our readers to the full report of the proceedings of the Society contained in this issue, which we feel certain will prove of value and interest, particularly to members who were unable to attend. The exhibition, which we notice at length in another place, was successful beyond expectation, and the lively interest manifested by the members shows the good judgment which originated this feature.

The Society has elected as its President Dr. James Simpson, of San Francisco. The selection was judicious. The doctor's reputation as a worker is established, while his ability as a Parliamentarian will render his services in the chair most valuable. On the question of the place of next meeting, a close contest resulted. A cordial and hearty invitation to the Society was extended from San Diego and reasons given which, in our judgment, ought to have decided the question. The proposal was negatived by a majority of five, and the meeting of 1889 will be held in San Francisco. Some of the objections raised by members from the northern and central sections of the State were rather illogical, for it is obvious that the distance to the southern city and the expense attendant on the journey, are difficulties not greater than those overcome by the visitors from that section. In Southern California the membership of the State Society is small, which fact may be attributed to the absence of the stimulus which the annual meeting is sure to lend. It was stated that an addition of two hundred members might be expected, and it would seem judicious that an effort should be made to secure this gain.

In this connection we feel it to be a duty, in the best interests of the Society, to sound a note of warning and to protest against any tendency to centralization. The sentiment has been freely and, perhaps, unconsciously ventilated, that San Francisco is the centre of the State, the representative of its wealth and brains, and therefore that the natural home of the Society is in the bay city. Without questioning the premises, we would earnestly protest against a tendency which would effectually kill the State Society and result in the formation of district societies, which has, before now, been suggested. The Medical Society of the State of California is of and for the whole State. It should be representative in the widest sense—and it will be well if for some years to come the annual meetings are held outside of San Francisco.

NOTES.

The Case of Jacob Dooley.

Conflicting reports regarding this case have appeared in the daily press. It was alleged that the boy had been severely injured by a whipping administered by his schoolmaster, as a punishment for using tobacco. It has also been stated that the punish-

ment, which was inflicted on February 22d, was very light; that on the three following days he was engaged in active work and violent exercise, and that he was not taken sick until March 6th. We learn that the facts are as follows: J. Dooley, of Long Valley, Lassen County, was punished by his schoolmaster on February 22d. He was subsequently treated for injuries then received, by an irregular practitioner. On March 8th he was seen by a physician and found to be then suffering from a sharp attack of peritonitis, complicated by a pneumonia of the lower portion of the left lung. The ensiform cartilage was separated from its sternal attachment, the apex pointing directly forwards. There was marked tympanitis and other evidence of abdominal mischief. He had been vomiting blood that day. March 12th the abdominal symptoms had abated, and the pneumonic attack was progressing favorably. March 27th he was considered convalescent. The school Trustees appear to have regarded the punishment and subsequent illness as having no connection, for, at a meeting at which the subject was considered, the master was exonerated from all blame in the matter.

Peculiar Suicides.

The *British Medical Journal* reports an unusual and painful suicide in the case of Admiral Versturme a retired naval officer, who succeeded in thrusting a thin red hot poker into his abdomen, inflicting three severe wounds. He died the day following the receipt of the injuries. Recently a young man named Nye Simmons committed suicide near Salem, Or., by a probably unique method. He was plowing with a three horse team in a sixty-five-acre field. He tied the halter strap to the double-tree, and making a slip noose of the other end placed it around his neck and then started the team. He walked a few steps and then fell; when found he was quite dead: the horses appeared to have walked about 600 yards and choked him to death.

Glanders in the Human Subject.

The death of Morris Ladd, which recently occurred at San Jose, appears to have been due to genuine glanders. The deceased was inoculated from a glandered horse through a wound in the hand. The disease pursued a rapid course proving fatal in three weeks. During the latter part of the illness the patient was comatose. The mucous membranes were not much affected, but the characteristic multiple abscesses were present.

SPECIAL CORRESPONDENCE.

NEW YORK.

[FROM OUR OWN CORRESPONDENT.]

Cerebral Surgery—The New York Quarantine Station—Death of Mr. Bergh.

At a recent meeting of the New York Academy of Medicine, a very valuable and interesting contribution to the diagnosis and surgery of cerebral tumors was read by Drs. E. C. Seguin and R. F. Weir. The patient whose case formed the basis of their double paper, was a man 39 years of age, who was referred to Dr. Seguin by Dr. Godfrey, of Bridgeport, Conn. He was affected with recurring spasm of the right side of the face and neck followed by general epileptiform covulsions, and Dr. Seguin made the diagnosis of cerebral tumor, probably subcortical, and affecting that portion of the motor zone of the left hemisphere which contains the centres for the face and neck. As the symptoms were rapidly growing worse it was decided that the only thing that could prolong the patient's life was an operation, and this was performed by Dr. Weir at the New York Hospital in November last. An opening in the cranium three inches long and two inches wide was made by means of the trephine and rongeur in the position above and in front of the left ear indicated by Dr. Seguin, and the tumor was found about three quarters of an inch below the external surface of the brain. It was a hard mass, almost the size of the end of the finger, and was removed by means of a scoop, after which a smaller and separate mass was found and removed. The microscopical examination of the tumor showed it to be an infiltrating sarcoma. The operation was performed under the strictest antiseptic precautions, including the spray, and in completing it the various pieces of bone which had been removed were replaced. The patient made an excellent recovery as far as the operation was concerned, and its result has been a considerable amelioration in the symptoms from which he previously suffered. Dr. Seguin is confident that his life has been materially prolonged by the procedure, and believes that when the man has recovered from the effects of a very severe attack of malarial fever, which he has had since returning to his home in Bridgeport, the improvement in his condition will be more marked than it is at present.

At the conclusion of this paper, which was most elaborate and exhaustive in character, Dr. W. W. Keen, of Philadelphia, described a successful case of his own which had been referred to by Dr. Weir in the course of his remarks. The patient, who was 26 years of age, had received an injury to his hand by a fall from a window when three years old. At twenty-three years of age he suffered from epilepsy with right sided deviation of the head and eyes, followed by paralysis of the right arm and leg, and also aphasia. He afterwards recovered, however, from the paralysis and aphasia. The initial symptoms of the epileptic fits pointed to the centre for conjugate deviation of the eyes, and the diagnosis of the situation and the surgical treatment of the tumor was largely

based upon this point. The operation was performed December 15, 1887, and the tumor removed measured nearly three inches in its long axis and about two inches in its short axis. During the operation great trouble was experienced from hemorrhage, due in great part to the extreme friability of the vessels. The hemorrhage was combatted partly by hot water, partly by ligation and partly by pressure, and in tying a ligature it was proved that absolute equality of traction on the two ends of the catgut was necessary in order to prevent its cutting through. Dr. Keen said that he regretted that he had not, previous to the operation, administered a dose of morphia, as recommended by Horsley, for the purpose of diminishing the supply of blood to the parts. In another case he would also be inclined to give ergot and perhaps antipyrin, and he preferred to use cocaine locally if occasion required. Such agents, he thought, afforded a much better chance of controlling hemorrhage in this class of cases than the mechanical means commonly resorted to. In performing the operation he had not resorted to the spray, like Dr. Weir, but had made use of all the other ordinary antiseptic precautions. In speaking of the matter of drainage, he said in his case he had been compelled to keep drainage up for a much longer time than he desired on account of the discharge following a large clot which formed after the operation. According to Horsley, drainage should not be maintained for more that twenty-four hours, and he believed that this was right, except under special conditions, such as existed here.

Our energetic mayor, Mr. Hewitt, has recently addressed an important communication to the chairman of the finance committee of the State Senate in which he urges that immediate steps be taken to secure the appropriation of a sufficient amount (estimated at about $200,000), to place the Quarantine establishment in New York harbor in a thoroughly efficient condition, and asks that in case the Legislature is unwilling to undertake the responsibility of doing this, it shall transfer the entire management of Quarantine to the City Board of Health. This sum, although large, would, he rightly says, be trifling compared with the pecuniary damage that would result to the business of the city and the State in case cholera were allowed to spread, as it came so near doing last season. The New York Board of Health, he goes on to say, is so situated at the present time as to be able to take charge of the Quarantine station and to give it such direction and supervision as will effectually protect the public from disease.

In the death of Henry Bergh, New York has lost one of its most eminent citizens and one who, notwithstanding his many eccentricities, came near to indispensableness in his usefulness. Two of his special crotchets, were his pronounced opposition to vivesection and vaccination; but such vagaries as these are far outweighed by the immense amount of good which he actually accomplished and which will result to all future generations from his services. As has been well said of him, his life-long devotion to the alleviation of suffering in the dumb creation, his patient perseverance in securing proper legislation for their protection from abuses, his zealous and vigorous enforcement of the laws enacted in their behalf, and, finally, as the crowning act of his long and useful life, his

organization of the society for the prevention of cruelty to helpless children as a natural outgrowth of his humane work, endears his memory to mankind at large and reflects honor on the country which gave him birth, on the city in which he lived, and on the societies of his creation.

NEW YORK, April 15, 1888.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting March 20, 1888.

The President, WM. ELLERY BRIGGS, M. D., in the Chair.

Election of Officers.—The following are the office bearers for the ensuing year: President, J. R. Laine; Secretary and Treasurer, G. L. Simmons, Jr.; Directors, the President and Secretary elect, W. R. Cluness, G. L. Simmons and H. L. Nichols.

New Member.—J. A. McKee, M. D., was duly elected a member of the Society.

Rodent Ulcer.—DR. LAINE exhibited this case, which had been shown to the Society in December, 1887. On December 22d he had operated, with the assistance of Dr. G. A. White, removing the diseased tissues which included the orbital process of the frontal and malar bones. The eye was also enucleated and the orbit completely cleaned out. For some time the wound did very well, but the granulating surface had persisted, and at date there was some evidence of the appearance of the disease in the mouth.

DR. W. R. CLUNESS, in connection with this case, would still hold out hope. Five months ago he had operated on what was apparently a case of epithelioma of the cervix. The diseased surface was curetted and the thermo-cautery thoroughly and deeply applied. The patient had since done very well, and had gained twenty-eight pounds in weight.

Acute Intestinal Obstruction.—DR. G. L. SIMMONS reported the case of a boy, aged 14 years, who, when seen, had been treated for almost a week by domestic remedies. The abdomen was distended and tympanitic, the legs drawn up, the pulse was rapid, the respiration sighing, skin cold and covered with clammy perspiration, and stercoraceous matter had been vomited. The case was obviously hopeless, but he was put under the influence of opium. He seemed to improve, but nothing passed from the bowels for two days, when a sharp piece of bone, consisting of a portion of the breast of a duck [specimen shown], and which was surrounded by pus came away. He died two days later. At the autopsy there was found a large cecal abscess with general peritonitis, the origin of which had undoubtedly been from the lodgment of the sharp spiculum of bone above described.

DR. WM. ELLERY BRIGGS read a paper on *Antiseptics in Ophthalmology*, (published at page 208.)

DR. T. W. HUNTINGTON, in opening the discussion, said that he was much gratified, to learn that oculists had awakened to the fact that there was something in antisepsis. The opening paragraph of the paper reminded him of what he had said four years ago when first bringing this

question before the Society. He had then alluded to the fact that oculists had not given the subject much attention, and he was glad to learn that that time had passed. The list of experiments and cases reported this evening showed that ophthalmic surgery had fallen into line, and unless the world of surgery was all wrong there was something in antisepsis for oculists. For three years he had carefully studied the question of antisepsis and asepsis in the hands of various surgeons, and he had come to the conclusion that under certain circumstances we must have something more than asepsis, and in these cases the only hope lay in antiseptics. This seemed particularly true in connection with the class of diseases mentioned to-night. In these it was impossible to produce a condition of asepsis, and it was a better illustration than any other, that in them something more than asepsis was needed.

DR. W. A. BRIGGS felt, like Dr. Huntington, that there were not many more rivers to cross. He was much pleased sometime since to notice that one of the most determined opponents of antiseptic surgery, Mr. Lawson Tait, had said that it was the duty of obstetric surgeons to use antiseptics, and while opposed to it in everything else he recommended it here. This appeared to the speaker to be a confession of the whole subject.

DR. H. L. NICHOLS had been taught that absolute cleanliness should be used in all surgery, and he believed that if this were pursued that, as a rule, success would follow.

DR. G. L. SIMMONS hoped that every member of the profession had read Lawson Tait's address on the Development of Surgery and the Germ Theory (*British Medical Journal*, July 23, 1887). He had not had a minor experience with carbolic acid for he had been poisoned with it; yet, so far as his experience goes, he is now taking rather a back track. As the speaker understood the matter that Dr. W. A. Briggs had referred to, Tait's remark, regarding the use of some antiseptic with the lying-in woman, was because she was not a normal woman, but one very susceptible to every influence.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting March 27, 1888.

The President, J. D. ARNOLD, M. D., in the Chair.

Treatment of Aneurism by Electrolysis.—DR. C. M. RICHTER read a paper upon the treatment of thoracic aneurism, referring to treatment by rest, diet and iodide of potassium, but chiefly to the benefits derived from electrolysis. He reported several cases in which this method had yielded the most gratifying results, and exhibited specimens taken from one or two patients who had died some time subsequent to the operation. In all of these a well organized clot was found lining the aneurism and increasing the thickness of the walls by more than half an inch

DR. J. H. STALLARD spoke of the prevalence of aneurism in this city. No doubt the disease was in most cases associated with endoarteritis and therefore the treatment of this latter affection should form the basis for other curative measures. The number of cases adapted to galvano-puncture was small, and it was surprising to see the lasting benefits that resulted from palliative measures. Eight years ago he examined a patient who presented all the symptoms of thoracic aneurism and prescribed absolute rest for three months; at the end of this time all the evidences of the disease disappeared and were absent for more than six years, when they reappeared and the patient died from cardiac asthenia. An autopsy could not be obtained.

Dr. J. Rosenstirn thought that some distinction should be made in the treatment of thoracic aneurism according to the situation of the tumor. He believed that in aneurism of the ascending aorta simultaneous ligature of the subclavian and carotid had been the most successful, twelve in thirty-two cases reported having lived for one year and upwards, after the operation. Electrolysis was not so innocent as it seemed, for in more than one case death had followed the operation in less than one hour. Balfour and Tufnel's methods had also given excellent results Electrolysis was best adapted to aneurism of the transverse and descending portions of the arch.

Dr. Wm. Watt Kerr did not think that iodide of potassium had any direct influence in promoting the formation of clot in the aneurismal sac, since the addition of the iodide to blood, removed from the body, prevented or retarded coagulation; and although the influence of the drug after absorption into the circulation might not be exactly the same, nevertheless, the fact that formation of clot is itself an abnormal process in the circulation, entitled us to expect that this potassium salt would have still less power to produce a clot when absorbed into the circulation. He thought that the great value of this drug in such cases lay in the power of reducing arterial pressure, and by its alterative effects bringing about a healthier condition of the vessels and other tissues. He reported three cases of combined wire and electrolysis operation for aneurism of the ascending aorta. The first died sixteen days after the operation from a subsequent dilatation of the transverse aorta pressing upon the trachea. The second made an excellent recovery and left hospital more than three months ago. In the third, a woman, the operation had to be abandoned as the wire first introduced was too stiff to pass away in loops from before the canula and the patient refused to allow the operation to be resumed.

Dr. A. P. Whittell suggested the following preliminary precautions in using the wire: Render the interior of the canula perfectly smooth by passing through it a piece of copper wire covered with oil and emery, this will diminish the chances of the wire kinking during introduction. When silver or platinum wire is used let it be drawn through a plate so as to give it sufficient spring without making it too hard; any excessive hardness is easily diminished by slightly warming the wire in a spirit lamp. The last part of the silver wire might be forced into the sac by a steel wire passed down the canula, and then withdrawn.

The President said that the discussion had chiefly referred to those cases in which operative interference was deemed necessary, but it often happened that the symptoms were too obscure to locate the disease with any precision. Recently he had seen a patient who complained of aphonia, together with slight pains near the larynx, and on examination, there was evidence of well marked aortic stenosis, although the second sound was pure, and no indications of aneurism, in the way of physical signs, could be discovered The probability was that an aneurism existed, but its presence was concealed by other organs.

Dr. George Chismore said that the *post-mortem* specimen exhibited by Dr. Richter showed the power of galvano-puncture to form a good clot, and he therefore preferred this to the wire operation in which the wire passed in any direction and is away beyond the control of the surgeon.

Dr. Richter replied that he had not been able to find one instance upon record where failure followed the introduction of the positive pole alone into the sac. In unsuccessful cases the negative or both poles had been introduced. Instead of starving his patients he highly nourished them, so as to accelerate the formation of new and healthier tissues.

Entertainment of the State Society.—The Secretary asked whether the Society intended to take any steps for providing a banquet to the visiting members at the meeting of the State Society.

Dr. Stallard moved that a committee be appointed to confer with the Committee of Arrangements, as to providing a banquet or other entertainment for the members of the State Society, and that they have power to act in the matter. The motion was carried, and the following committee appointed: Drs. Stallard, Kenyon, Fitzgibbon, Hart and Kerr.

THE MEDICAL SOCIETY OF THE STATE OF CALIFORNIA.

Eighteenth Annual Meeting, held in San Francisco, April 18, 19 and 20, 1888.

First Day—Wednesday, April 18th—Morning Session.

The Eighteenth Annual Meeting was held at B'nai B'rith Hall. The Society being called to order by The President.

Address of Welcome.—C. G. Kenyon, of San Francisco, on behalf of the resident members, extended a hearty welcome to the visitors from abroad. He alluded to the material advances which had been made in the State during the past year. He directed attention to the exhibition in connection with the meeting and dwelt upon the importance of the new feature.

Annual Address.—The annual address was then read by the President, R. H. Plummer, of San Francisco. The following subjects were recommended for the consideration of the Society: In accordance with a bill introduced at the instigation of the State Board of Health at the last session of the Legislature, he advised that no body should be interred without a permit from a Board of Health, Health Officer or Justice of the Peace, upon a certificate from a legally qualified physician, the Coroner, or, in default of this, the written statement of two reputable citizens. The permit or certificate to be duly recorded. In this connection he alluded to the necessity of the formation of local boards of health in the smaller towns and pointed out that no further legislation was needed as the Supervisors had been armed with the necessary authority. The necessity for the establishment of a quarantine station at the Port of San Francisco was urged and the existing deficiencies pointed out, together with the present status of the measure now before Congress appropriating the necessary funds for this purpose. The importance of a State law compelling the vaccination of all children before entering the public schools was urged. At present several cities have ordinances providing for compulsory vaccination within their limits, but are constantly exposed to infection from abroad. A general enactment would make this protective measure universal. Regarding the existing law providing for the recording of births, marriages and deaths, which has frequently been mentioned as inoperative and impossible to enforce, he directed attention to Sections 3075 and 3077 of the Political Code and Sections 377 and 378 of the Penal Code, where adequate penalties were provided. The present condition of the Constitution and By-Laws of the Society was mentioned, and the advisability of appointing a committee to revise and codify the same was urged. The recent action of the Board of Examiners in raising the standard of qualification, and requiring a three years' graded course from every applicant for a license to practise in this State was mentioned and the suggestion made that the Society heartily endorse the same. The

necessity for a good primary education was dwelt on, and mention made of provisions in the bill now before the Society in which this had been provided for. The following committee was appointed to report on the recommendations contained in the President's address: C. E. Blake, W. W. Kerr, S. O' L. Potter, H. S. Orme and J. H. Parkinson.

AFTERNOON SESSION.

Report of the Board of Examiners.—The report of the Board of Examiners was read by the Secretary, Wm. M. Lawlor. The number of meetings held during the year was 13; certificates granted, 265; duplicate certificates issued, 2; applications refused 5. Amongst those receiving certificates were thirty-seven graduates from California schools. The work of preparing the fourth edition of the Medical Register had been necessarily slow, owing to the great difficulty of obtaining the requisite data. It was found that the prospective revenue from all sources would not justify a complete re-issue of the Register. A supplement, containing the names of those granted certificates had therefore been published. The work of the Board was steadily increasing, the number of certificates issued being fifty-nine in excess of the previous year. All expenses having been paid, a balance of $100.72 remained in the treasury.

Rush Monument Fund.—DR. A. L. GIHON, on behalf of the Rush Monument Committee, made a statement of its object and purpose. He said: When we determined upon erecting this monument, it was resolved, as there were 90,00 physicians in the United States—there are now 100,000—to limit the subscription to one dollar, and we should at least get one-quarter of that number to subscribe. I am quite sure that out of the 100,000 physicians in the United States we will find a quarter, at least, who will give us a dollar, and that will build a handsome monument. A great many physicians wanted to give more, but we were satisfied that we would receive more funds than we needed.

DR. WALTER LINDLEY, of Los Angeles, said that the address of Dr. Gihon contained so much matter that was interesting that it would be well worthy of reference to the Committee on Publication.

DR. W. P. GIBBONS, of Alameda, said, as the speaker justly remarked, there is no grander character in the annals of our country, no more distinguished man in the medical profession, than Dr. Rush; and, inasmuch as the medical profession at the present time owes a tribute, not only to his memory, but to his work; inasmuch as he was the greatest of physicians of the age, I think it only proper that something more should be done with this report than merely to submit it to the Committee on Publication. He was in favor of the appointment of a committee to collect subscriptions from the Society.

Doctors Gihon, Tyrrell and W. P. Gibbons were appointed a committee to collect subscriptions from the Society.

Committee on Mental Diseases and Medical Jurisprudence.—The report of the Committee on Mental Diseases and Medical Jurisprudence was read by Dr. W. W. Macfarlane, of Agnew. The speaker alluded to the barbarous treatment to which the insane were formerly subjected. The insane in California were amply provided for. He believed that the feeble-minded and idiots should be treated in their own county hospitals, which would be more economical than sending them to the State asylums. More than sixty per cent. of patients in the asylums are of alien birth. There has been an average of 152 Chinamen, at a cost of $22,000 each year. California is the only State having no Sunday law. To this much of our insanity, which depends on drunkenness, is due. He alluded to the prevalence of feticide, which he thought had much influence on

mental diseases, in consequence of the physical deterioration resulting from it. Mental and moral treatment had much to do with recovery. Here the number of inmates was so great that it was impossible to give them much attention. He deprecated the custom existing in this State, whereby the management of the asylums and the appointment of the officials was in the hands of Boards of Trustees, instead of being under the control of the Superintendents.

DR. J. W. ROBERTSON, of Napa, in opening the discussion, said: The question, whether or not insanity is on the increase, had often been discussed. There was no doubt that the number of the insane had increased. When the insane asylums were first opened they were looked upon as jails. It was found that but little restraint need be employed. In the reception wards of the asylums were placed some of the most intelligent patients, who understood the rules of the institution and were quiet. Patients, on their way to the asylum, are frequently subjected to rough usage, and consequently arrive in an excited and exhausted condition, but on finding that they are surrounded by quiet and order they soon calm down. There was not a single straight jacket in Napa or a dozen patients under restraint. Chronic and acute cases should be kept apart. One violent patient would upset a whole ward. It was desirable that the insane should be sent to the asylums early, as under the influence of strict rule and hygienic measures they were invariably benefited. Theoretically there should be an asylum for every county. This, of course, was impracticable, but there ought to be an asylum for every congressional district. Regarding the question of increasing the number of physicians in the asylums—of the 1,400 cases in Napa, about 800 received very little medical treatment. In other States, where the staffs were numerous, the salaries were small. The best men were therefore not attainable, and there was no permanency. It required a year's training for a physician to be successful with the insane. He believed that the existing system was the best. The suggestion that there should be one law for the government of the State asylums was an excellent one. At Napa the Board had absolute control over the appointments and dismissals.

DR. W. H. MAYS, of Stockton, said that insanity was not more prevalent in this State than elsewhere. There were in Stockton 1,600 cases; in Napa 1,400. Estimating the population of the State at one million and a quarter, the rate would be one in four hundred—a very low percentage. In New York, the percentage was 1 in 352; Massachusetts, 1 in 362; Illinois, 1 in 345; Great Britain, 1 in 348. The profession should endeavor to remove the prevalent belief that this State had more than its share of insanity. In no State in the Union were the insane so closely sifted out. There seemed to be an intolerance of any form of mental disease, and all cases were promptly sent to the asylums. He believed that there was a crying need for more medical help. It was true that a large number of the inmates did not require medical treatment, but they required what was of more importance—care, employment, amusement and general surveillance. He was glad to learn that the asylum for the chronic insane would soon be opened.

DR. H. D. ROBERTSON, of Yreka, said that it frequently happened that patients were discharged before they were cured. He was glad to know that there would soon be more accommodations for the insane, and he hoped that the physicians in charge of the asylums would then use a little more judgment and make an effort to hold these patients until they were cured.

DR. MAYS thought that if the speaker was present in the asylums for a few months he would modify his statement that the authorities were hasty in discharging patients. The question of discharging a patient

really was, "Is he so insane that he needs to be retained there?" When patients recovered, to all intents and purposes, and when they became sane enough to be discharged there was no alternative other than to do so, even if they again became insane. Patients are said to have recovered from diseases, as pneumonia, but that did not guarantee that there should be no recurrence, and it was the same thing in mental diseases.

Dr. Grover, of Berkeley, said that the overcrowding of the asylums was partly due to the fact that what are called "insane criminals" are sent there. There should be a branch asylum attached to the State Prison at Folsom or San Quentin for such cases.

Evening Session.

Committee on Surgery.—The report of the Committee on Surgery was read by W. E. Taylor, of San Francisco. He had selected the subject of Operative Procedure in the Treatment of Internal Cancer. He assumed the existence of the disease called cancer in its usual acceptance, and he confined himself solely to the carcinomata, and their treatment by cutting instruments. He questioned whether modern operative surgery had not passed the bounds of prudence. He did not think that an operation should be performed unless with some hope of cure. By this he implied a permanent recovery without further extension, and he did not accept the three-year limit or no recurrence within that period. He wished to sound a note of warning—that we should pause and well consider before performing operations of this class. He believed that operations for internal cancer would, in the future, be less frequently done than now. The difficulty of an early, and even a correct diagnosis of internal cancer was extreme. He cited Butlin in support of this position, that authority condemning too frequent interference. He characterized the results of some of these operations as ghastly—in one series, a total of 364 operations and 126 recoveries. The necessity of diagnosis was dwelt on and instances of "cancer" cured by appropriate treatment mentioned in this connection. The splendid results achieved in abdominal surgery encouraged these operations, but there was no comparison between operations for benign and malignant tumors. Complete removal in the one case was cure, in the other only a hope of ultimate recovery could be held out. In non-malignant disease, where life is threatened or great suffering is undergone, the surgeon is justified in operating. In malignant disease, it was unwise and unsurgical to use these facts as arguments in favor of operation. No matter what advances in operative *technique* had been made, the clinical fact remained that a cure was impossible until a specific remedy was found.

Dr. T. W. Huntington, of Sacramento, in opening the discussion, said that he regretted that the subject could not have been reviewed from a different standpoint from that adopted by the author. He was glad that a halt had been called to indiscriminate operations upon neoplasms, regardless of their end. It was true that some brilliant results had been obtained, and it had been claimed in consequence that the operations in all instances were justifiable. It had been said that the law givers of art were not always artists, and he was forced to admit that the law givers of surgery had not always proved to be surgeons. He believed that the ambitious operator, seeking the greatest good of the greatest number, had field enough and opportunity sufficient in which to achieve honor and the greatest amount of service to the human race. He wished to thank the author for the work he had done. He believed it would be of great service to the Society and to the profession.

Dr. E. B. Robertson, of Jackson, had operated in several cases of malignant disease. In each case the growth had been successfully re-

moved, but after a variable period of time had returned. He therefore believed that where we are fortunate in one case and the patient recovers and continues to do well, that it is simply an error of diagnosis. We may put off the evil day, but there is no such thing as cure.

DR. L. C. LANE, of San Francisco, disagreed with Professor Taylor in the view which he had taken of the incurability of cancer. He was entirely satisfied that cancer was curable, and he was satisfied that he had cured it a number of times by operation. Since November, 1876, he had operated 88 times. A number of the cases had been kept under observation. Many of them had died, but he could safely calculate that one-fifth were living. The great trouble was that the cases were not seen sufficiently early. From observation and study he was convinced that in a very large number of cases the trouble is at first purely local, and therefore curable by removal. There was a great prejudice against operation from the dissemination of the notion that the knife will not cure the disease, and it frequently happens that cases are not seen until too late. It was easy to talk and to give one's personal experience. He would, however, select one case, to show there could be no doubt as to the nature of the disease. In what might be termed a "cancer family"—the father and mother died of cancer; they were not operated on—a daughter had an unmistakable cancer of the mammary gland. An operation was performed on her nine years ago. She is, and has remained well ever since. A granddaughter also had the disease. Her breast was removed five years ago. There has been no recurrence. In these cases the operation had been performed early. A patient, who had been operated on twenty-five years ago for mammary cancer, and in whom the other breast was subsequently removed, is still living. With these facts before him he was compelled to disagree with Dr. Taylor. Billroth states that he has cured one-third of his cases, and Germans are very careful indeed of their diagnoses. A microscopic examination is invariably made. Personally he had always followed this rule.

DR. HUNTINGTON inquired if the speaker's experience warranted operations on deep structures, as in cancer of the uterus?

DR. LANE—I believe that I was the first to perform that operation in the United States. Nearly all the cases were seen too late. They had been cauterized and portions of the neck had been removed in every case except two. I believe the operation is justifiable if we could get the case in time, but I should carefully select my case and would be guided by previous experience.

DR. W. F. MCNUTT, of San Francisco, said the statistics of removal of the uterus for malignant disease are much better in Europe than in this country. Martin has had marvelous results—his cures being about forty per cent. The secret of this is early diagnosis, for which the microscope is relied on. He did not think that an American surgeon could be found who would operate on this evidence alone. Enlargement, hemorrhage, pain and all the physical symptoms were deemed necessary. Then when an operation is performed the patient dies. The speaker had operated on a patient for cancer of the lip thirteen years ago, and he is now perfectly well. Four years ago he had removed a breast. The disease was well advanced. All the glands were removed. The patient is now perfectly well. He thought that more attention should be given to early diagnosis, and by that means we could expect to relieve more of our patients, and fully justify the operation.

DR. J. D. ARNOLD, of San Francisco, said that where the individual experience of surgeons would put them either on the radical or conservative side of the question, he believed that the true pathology of the disease should be made the touch-stone for operation. If the surgeon believed the disease to be systemic, operation was only justifiable for the relief of

pain and prolongation of life. If, however, he believed that cancer was a purely local disease and could become systemic through actual extension, his decision would depend on whether or not he could completely remove the diseased structures.

Dr. Charlotte B. Brown, of San Francisco, thought that the refusal to operate often exercised a disastrous effect upon patients by confessing the hopelessness of these cases. She would operate even in the face of a large mortality, and she thought that other surgeons shared this feeling.

Dr. C. Cushing, of San Francisco, said that his personal experience was limited to malignant diseases affecting the uterus. He agreed with Dr. Arnold as to the main principle which should underlie operative procedure. In cancer of the uterus there were only two conditions which warranted active interference. One is that the disease shall be limited to the uterus not affecting the surrounding tissues. The other is where the disease has extended sufficiently to produce an amount of hemorrhage and discharge, which seriously impairs the comfort and immediate health of the patient. Cases in which the surrounding tissues are involved, but without serious discharge, are not proper cases for operation. When the uterus was fixed it was unwarrantable to remove it. In the first place, it involved the danger of immediate death. In the next, there was no such thing as a cure. The only possible justification for surgical interference is to gratify the woman in making her think that something is being done, and thus keeping her out of the hands of the quacks. He believed that these two propositions were sound. A portion of the growth should be subjected to microscopic examination. If this proved that it was cancerous, an operation was justified under the limitations that he had laid down. Outside of these, he believed that interference was not warranted.

Dr. J. Rosenstirn, of San Francisco, believed that the position as to the advisability of removing internal cancer in strict opposition to the removal of external cancers was an erroneous one. Why should we believe that cancer of the uterus would be more liable to affect the organism than diseases of the mammary gland? The real secret of success was early operation, and we should endeavor, where we can make a positive diagnosis, to have our patients submit to operation. Extirpation of the larynx had been mentioned, and it was true that in the statistics quoted by Dr. Taylor, there was an alarming mortality; but if we look to the statistics of one operator, Eugene Hahn, we find that he has only two deaths following fifteen operations. Of these, two are now well—one seven and the other three years after operation. Without advocating operation he thought that we ought to endeavor to improve our methods. We could not cure cancer, but we were certainly able, in many instances, to relieve intolerable suffering, and to prolong life with freedom from pain for many months.

Dr. Taylor, in replying, said that he did not wish to be regarded as considering these operations unjustifiable. His object had been to call attention to indiscriminate operations for internal cancer, simply because consent was given, and because the patient may survive the operation. Operations on properly selected cases were justifiable. Notwithstanding what had been said he felt that true cancer involving an internal organ, was not curable by operation. He did not consider that operations for external cancer were unjustifiable. They were justifiable in many cases, with a view to both physical and mental relief. He questioned whether a microscopical examination was always correct, and doubted the competency of many in the use of this instrument. Investigators often found what they expected to find. The object of his paper was to call attention to indiscriminate operations; to ask for a reconsideration of the subject and greater care in the selection of cases.

Committee on Histology and Microscopy.—The report of the Committee on Histology and Microscopy was read by JULIUS ROSENSTIRN, of San Francisco. The recent discoveries in bacteriology were enumerated. The infallibility of the theory which supposed that suppuration depends in every instance upon the presence of germs in the tissues has been somewhat shaken by the experiments of Grawitz and de Bary. The latter injected hypodermically, under strict antiseptic precautions, sterilized five per cent. solutions of nitrate of silver, resulting in the development of abscesses entirely free of bacteria. Their experiments prove that certain chemicals cause suppuration, without the aid of germs, and that the cocci can accomplish the same only with the assistance of certain poisonous products of albumenoids called ptomaines. The ptomaines are crowding their respective bacilli into a secondary *rôle*, degrading them to the office of messengers and advance agents, preparing the soil for their royal master, the ptomaines.

An interesting exhibition of photo-micrographs was given by means of the magic lantern, and the bacilli of anthrax, mouse septicemia, cholera, tuberculosis and leprosy, together with sections of different morbid structures, were beautifully shown.

DR. H. FERRER, of San Francisco, who opened the discussion, exhibited several specimens and cultures.

DR. J. H. STALLARD, of San Francisco, who also spoke, mentioned that in connection with the inoculations of leprosy performed by Dr. Arning on the Hawaian criminal, the disease had not spread, though the bacilli were still found at the seat of inoculation.

SECOND DAY—THURSDAY, APRIL 19TH—MORNING SESSION.

Report on Medical Topography, Meteorology, Endemics and Epidemics.—Owing to the absence, through illness, of the Chairman, DR. J. B. TREMBLEY, of Oakland, the report was read by title, and referred to the Committee on Publication.

Committee on Diseases of Women.—The report of the Committee on Diseases of Women was read by I. E. OATMAN, of Sacramento. The doctor wished to notice particularly the subject of eclampsia. While albuminuria invariably accompanied eclampsia, its etiology was uncertain. He believed that if pregnant women would place themselves under the care of a competent physician during gestation, eclampsia could in every case be averted. If convulsions appeared, they could be combatted by narcotics; but these required to be continued in full doses to maintain the effect. In veratrum viride, in 10 m. doses, an efficient remedy existed. Early and rapid delivery, under an anesthetic, if necessary, was indicated. Treatment should be continued after delivery to maintain that degree of relaxation, in which convulsions never occur. He included in his paper infantile convulsions during severe fever or from injury and gastric disturbance. In these cases treatment must be directed to the removal of the cause.

Report on Public Hygiene and State Medicine.—DR WASHINGTON AYER, of San Francisco, said that the condition of his health prevented him from reading the whole of his report, consequently he would omit reference to abuse of alcoholic liquors, cocaine and opium, and merely direct the attention of the Society to the subject of expert testimony in cases where mental disease is advanced as a plea of defense. The course pursued by the Courts, where such pleas as emotional insanity are advanced, is nothing but a hippodrome of justice, and by this means the

testimony is made to appeal so much to the sympathy of the jury that the ends of justice are more frequently defeated than served by it. In addition to this, it is an inducement for depraved persons to commit crime in the hope that such a plea will be advanced. The expert, although treated with courtesy while on the stand. is nevertheless hampered by hypothetical questions, to which he is only allowed to answer yes or no; thus the jury is completely puzzled, while at the same time the value of the testimony, as an aid to arrive at a just verdict, is greatly impaired. To avoid such manifest injustice the defendant, in cases where such a plea has been advanced, should be examined by an expert committee of three, appointed for this purpose by the Governor of the State, whose report should constitute the only expert testimony in the case. Dr. Ayer also urged the separation of insane criminals from other insane patients, either by providing a distinct asylum or by segregating them into different wards.

Dr. James Simpson, of San Francisco, in opening the discussiou, said: This subject, including public hygiene and State medicine, is so vast that it is impossible to condense it into a short discussion. One of the Judges had recently remarked that the taking of opium and cocaine had greatly increased. This subject deserved such consideration as would enable us to enlighten the public, and to pass laws to prevent the spread of these habits. There is nothing, perhaps, that the public is more interested in just now than the suppression of crime and the punishment of criminals, especially those guilty of murder. He was in full accord with the remarks of the writer. Any one who has been in the courts as an expert knows that he goes there with a slight prejudice for or against the criminal. In the first place, the lawyer approaches him on the question. If the doctor's views are in accord with the theory of the prosecution, or of the defense, he is summoned as an expert. The medical men are scanned over, regarding who and what they are, and their views in reference to insanity. If these are in accord with the idea of emotional insanity, with the idea that a person can one moment be sane, and in another moment so irresponsible as to commit murder, he is summoned on the part of the defense. In court there is no medical man who is not subject to more or less embarrassment. In the first place, let him be as careful in the wording of his language as he may be, let him pass the first examination as clearly and lucidly as possible, he will have to encounter in cross-examination every effort to make him retract what he has said, or to make the jury so confused that it would amount to little, so far as the real truth of the matter is concerned. "Sympathy," as the doctor observes, should not exist in the mind of an expert. There should be no sympathy. But, as I said before, medical men are human, and sympathy belongs to every one that is human. The evils are so great, plain and obvious, that the only remedy is a commission, sitting quietly and alone, viewing the criminal, free from the influence of the lawyer, of friends and of surroundings, to analyze his mental condition. Such a commission would, no doubt, render a report to the jury in accordance with the facts and the real truth. This commission, as the writer suggests, might be appointed by the Governor. The commission might be as large as five, without any danger. It could be selected with a great deal of care, and subject to no cross-examination, except some question the jury would require more explanation upon. I believe that we shall never have the criminal law administered as it ought to be, and the guilty punished, and the innocent set free, until we have such a commission. The commission should come from medical men, who are in the habit of administering to the ailments of the insane and the sick, because an insane man has evi. dently a sick mind, if he is insane. This Society should make an effort, and probably by concentration, we may succeed in doing something

DR. G. G. TYRRELL, of Sacramento, had understood the writer to convey that an asylum for the criminal insane was in course of erection. This was an error. A bill had been prepared and was presented to the Legislature in 1887, but failed to pass (*vide* TIMES, 1887, p. 35).

DR. W. P. GIBBONS, of Alameda, enquired the number of insane which had been sent to the asylums from the State prisons, and whether they were liberated at the discretion of the authorities at the asylums.

DR. GROVER, of Berkeley, said: When a criminal is deemed insane by the legally constituted commission, connected with the State prisons, consisting of the warden, captain of the guard and the physician, they are sent to the asylum. When the authorities at the asylum deem them to be sufficiently sane, they return them to the prison to serve out their term. This subject has been frequently agitated, and has always been one of great importance. Criminal insane are sent to the State prisons for murder. I have several of them in my mind who were no more insane than any person in this room. During the time that I was at Folsom, seven or eight were sent to Napa and Stockton. We had to send them, because we had no place to put them, unless they were kept in solitary confinement. The subject of expert testimony is of the greatest importance. The medical witness was frequently not examined or given an opportunity to explain. He was asked hypothetical questions, and required to answer yes or no. It could therefore be seen how valueless and misleading this class of evidence frequently was.

DR. J. W. ROBERTSON, of Napa, urged the importance of this question. The criminal insane received at Napa were not segregated, as the institution was overcrowded. There was no difficulty for a criminal to escape, if he had sense enough to do so. He deprecated the practice which existed of sending criminals to the asylums without the regular commitment, as they were thus in perfect ignorance of the cause of insanity or of its form.

DR. WALTER LINDLEY, of Los Angeles, moved the following resolution, which, was adopted:

Resolved, That this Society especially endorses that portion of Dr. Ayer's paper referring to expert testimony, and that it be referred to the Committee on Medical Legislation, with a request that they take active steps to have it incorporated in the laws of the State.

AFTERNOON SESSION.

Committee on Publication.—The report of this committee, which was published in the Transactions of 1887 and which had been made a special order for this session, was taken up. After some discussion, it was unanimously resolved that the transactions should be "published in volume form as heretofore."

Committee on Organization of County and District Societies.—The report of the Committee on Organization of County and District Societies was read by the chairman, WM. M. LAWLOR, of San Francisco. The report mentioned the various societies at present organized, with the dates of their foundation. During the year, two societies had been organized. The Sonoma County Medical Society, March 5, 1887, and the Napa County Medical Society, on December 5th, 1887.

Quarantine Station at San Francisco.—DR. JAMES SIMPSON of San Francisco, who brought up this question, said: There is a special effort being made just now to obtain from the General Government a quarantine station in this harbor. For that purpose a bill has been introduced in Congress appropriating $100,000, and placing it at the command of the United States Marine Hospital Service. This bill is now before Congress,

and an effort has been made by the San Francisco Board of Health, and the Chamber of Commerce, and several others to have it passed. I want the endorsement of this Society to assist us in accomplishing this object. I will read the petition that has been sent forward, and ask the Society if it is in accordance with their views to endorse it.

The petition was read, and after some discussion it was unanimously resolved to endorse it, and to telegraph to the representatives of the State in Congress to that effect.

The Climate of Tehama County.—A paper on this subject was read by DR. JOHN FIFE, of Red Bluff, pointing out the advantages which that section presented for pulmonary diseases owing to its equability, warmth and absence of moisture.

Election of Officers.—The Society then went into the election of officers for the ensuing year, with the following result:

President,	JAMES SIMPSON.
First Vice-President,	WALTER LINDLEY.
Second Vice-President,	W. J. G. DAWSON.
Third Vice-President,	W. A. BRIGGS.
Fourth Vice-President,	J. E. S. BAKER.
Secretary,	W. WATT KERR.
First Assistant Secretary,	L. M. F. WANZER.
Second Assistant Secretary,	H. M. SHERMAN.
Treasurer,	G. C. SIMMONS.
Board of Censors:	G. J. FITZGIBBON, C. C. VALLE, S. F. LONG, H. W. DODGE, E. W. KING.
Board of Examiners:	R. H PLUMMER, C. H. STEELE, C. E. BLAKE, C. E. FARNUM, JULES SIMON, W. S. WHITWELL.

EVENING SESSION.

Committee on Diseases of Children.—The report of the Committee on Diseases of Children was read by H. M. SHERMAN, of San Francisco. He said that entero-colitis became prevalent when the minimum daily temperature is above 60° F. Bacteria thrive in this condition, and produce various poisons—the ptomaines, of which tyrotoxicon has been chiefly studied. The propagation of these bacteria is hindered by the antiseptic properties of the gastric juice and bile, but if indigestion takes place, bacteria find a favorable culture medium, develop rapidly, and produce their specific effects. In accordance with these views the modern treatment has been modified. Laxatives, followed by antiseptics, such as bismuth salicylate, naphthaline, resorcine, nitrate of silver and bichloride of mercury, are the remedies most in favor.

DR. HENRY GIBBONS, JR., of San Francisco, in opening the discussion, said: Summer diarrhea is a disease which is almost unknown in this city. We have diarrhea, but nothing to compare with the Summer diarrhea of the East. He enquired if, in the treatment of these cases with naphthaline and sodium salicylate, no other treatment is used in connection therewith. Is it to be understood that no opium is used, but that the treatment is conducted solely with one or other of these drugs?

DR. SHERMAN — In the case reported by Dr. Holt, no opium was used.

DR. GIBBONS. — Without any knowledge of the probable bacterial origin of the disease, the older physicians were accustomed to use calomel. The initial treatment was, as has been mentioned in this paper, the exhibition of a dose of castor oil, in order to remove the decomposing materials on which the disease depended. This is the treatment specially advised by West. In such cases, both calomel and hydragyrum cum creta were also used extensively for a like purpose, not only for the initial purpose of removing the defective secretions, but for the purpose of a

continued treatment. It seems, at the present day, that the older physicians had a little more practical knowledge of the value of some drugs than those of a later period supposed they had, for you will remember at one time, calomel and similar preparations were almost tabooed. Now it is discovered that they are germicides, and probably accomplish a great deal of good on that account, if we believe in the efficacy of the bacteria in the production of summer diarrhea. The older physicians were also accustomed to use creosote, which is of some value. It has been long my practice in the treatment of diseases of this character to commence with a dose of hydrargyrum cum creta, or calomol, often guarded, as the expression used to be used, with a certain amount of opium; and one dose will sometimes be sufficient to practically cure a severe attack of diarrhea. I must confess that I have not arrived at a conclusion which would make me willing to discard opium in the treatment of these diseases. Long ago I learned the efficacy of bismuth and opium in the treatment of children and adults, and have found it an excellent combination.

Dr. J. A. Anderson, of San Francisco, would not attempt for a moment to criticise the paper which had been presented, were it not that it seemed to inculcate the idea of treating these diseases by the antiseptic method alone. That the diarrhea is occasioned by bacteria all will admit, but there are cases when the ptomaines and bacteria in the system have brought about a train of symptoms, which the mere administration of germicides will not remove. A child whose temperature has run up to 104. or 105. F. with cholera infantum may be filled up with germicides, but unless you lower that temperature, your removing the germicides will not relieve the child. Place the patient in a cold bath, and lower the temperature as the doctor suggests, and also give opium, which decreases the secretions, and thus takes away the food of the bacilli, and you will have greatly aided your antiseptic treatment. The speaker said that he practised on the south of Market Street, and saw true cases of cholera infantum. He recommended the use of the cold water bath, and especially opium.

Dr. Geo. Chismore of San Francisco, did not see that the general practitioner had at present a sufficient justification for abandoning older methods, and basing his practice exclusively upon the theory of bacteriology. Until the battle between the micrococci and the ptomaines shall have been settled, until something more definite is ascertained, by which we can go to the bedside with more assurance and confidence, we will have to abide by the older methods. Another point which struck him as worthy of note was that the preceding dose of castor oil is in many cases sufficient to cure a case of itself. There seemed to be a direct conflict in the practice followed. A dose was given to clear out the bacteria, and then a dose of opium to lock up the bowels, and retain them there. In his practice, in many cases, during the hot season and fruit season, of children, with a temperature of 103° to 105° F, the administration of four grains of calomel and a little sugar would often find the child on the next morning minus its temperature, plus an appetite, and virtually well.

Dr. G. F. G. Morgan, of San Francisco, said that if the diseases mentioned by Dr. Sherman were due to bacteria, we might hope to destroy their activity by the free use of alkalies. He had understood Dr. Rosenstirn, last evening, as stating that modern investigation had shown that bacteria did not thrive in alkaline media, if so, the employment of alkalies was logical.

Dr. Sherman, in replying, said: Only those remedies which had been advised in the last year or so were considered in his report. The older methods were left untouched. West, in his administration of castor oil for the diarrhea of children, gave it in connection with opium in very small doses, but frequently. Its effect never was to clean out the

bowels. The speaker used it very often. It always soothed the intestines, and gradually checked the diarrhea. Calomel is known to be a germicide. Bismuth is also acknowledged to be a germicide, and is used in surgery for wound dressing; the wounds being douched during the operation with water in which bismuth is suspended. Oxide of zinc is used in the summer diarrhea of children, especially for its control over vomiting. It has also been used as a wound dressing. One class of remedies much used, are the astringents, gallic and tannic acid, tincture of catechu and tincture of kino. How they can be antiseptics is at first a little puzzling. But if we remember that they have the property of forming insoluble salts with some alkalies, it is quite possible that they may form such salts with the alkaloidal bodies, the ptomaines, and thus render them inert. In regard to whether the treatment should be limited solely to antiseptics, it was stated by Holt that these were the only remedies used. The true indications of the case should be met either by sedatives or stimulants. There is no doubt about the efficiency of a sedative dose of morphia, or a stimulative dose of alcohol, or digitalis, or nux vomica, but the main treatment was by antiseptics, and these others were subsidiary and auxiliary.

Committee on Ophthalmology, Otology, Laryngology and Rhinoscopy. The report of this Committee was read by the Chairman, GEO. C. PARDEE, of San Francisco. He gave an extensive *resumé* of the recent progress in these branches. Among the subjects touched upon were the treatment of corneal ulcers with the galvano-caustic and by corrosive sublimate; conjunctival blenorrhea and its prophylactic treatment; the occasions requiring enucleation of injured and blind eyes; the cure of chorea, epilepsy and other nervous troubles by correction of errors of refraction and accommodation; the treatment of glaucoma without operation, by eserine and pilocarpine; the treatment of choroiditis pigmentosa by electricity. He mentioned the return to Daviel's operation; the irrigation of the anterior chamber and the use of antiseptics in cataract operations, and the abandonment of bandages and rest in bed after extraction.

DR. A. P. WHITTELL, of San Francisco, opening the discussion, said that he wished to direct special attention to one subject mentioned in the report —blenorrhea at birth. It is something which must interest the profession in general, when we consider how much blindness is due to this one single cause. It is in the power of almost every one attending a woman in confinement to prevent this sad result. When it does supervene, by proper treatment total blindness will never occur, although the vision may be impaired. Vision with one eye is better than none at all. To run the risk of losing a good eye by temporizing with an eye which has been hopelessly injured, and already lost to sight was, he thought, exceedingly bad practice. He inferred from the tenor of the opinions which had been quoted, that enucleation should be abolished, and that it was no longer considered a legitimate operation. He did not think so, but believed that it was eminently necessary.

DR. PARDEE thought that the speaker had misunderstood and misquoted him. He agreed that the operation of enucleation was a very necessary one.

DR. WHITTELL said that he had not intended to misquote the paper. He alluded to that particular form of blindness, with the symptoms of sunstroke which followed exposure to the rays of an electric light of about 1,600 candle power, within a radius of 16 feet. The symptoms resembled sunstroke in every particular, and further observation might throw some light on the pathology of this affection.

DR. J. D. ARNOLD, of San Francisco, wished to draw attention to one or two little points in rhinology. Dr. Pardee adverted to the fact that

a number of obscure reflex symptoms have been properly of late ascribed to some irritation in the nose, but he did not refer to the fact that a number of cases of asthma had been reported as thoroughly cured by cauterization of the hypertrophic tissues on the turbinated bones. Voltilini discovered that nasal polypus was frequently the direct cause of attacks of asthma, and merely by accident he found in his first case that by removing the polypi, an end was put to the attacks of asthma. Since then it has been discovered that not only the removal of the polypi, but the destruction of all the hypertrophic tissues in the nose will produce the same result, and that it will, in a great majority of cases, effect a cure. He would have liked to have heard Dr. Pardee refer more fully to the beneficial effect, which the introduction of the use of the galvano-cautery has had in the treatment of catarrhal diseases, which drive so many patients into the hands of the charlatan, and which are in 999 cases out of 1,000 absolutely curable by this procedure, excepting, of course, cases of ozena.

Dr. J. H. Stallard, of San Francisco, believed that when we consider the amount of blindness which was caused by the neglect of ophthalmia neonatorum, it would be judicious to issue simple instructions to nurses and those having charge of infants. In his experience, milder astringents than the nitrate of silver had been sufficient, and he thought that some simple remedy might safely be placed in the hands of the laity. The use of these remedies should be just as much a part of the first dressing as the bath or the clothing.

Dr. H. D. Robertson, of Yreka, said that in the country the general practitioner was sometimes compelled to operate upon the eye, when the occasion was urgent and the patient too poor to obtain the services of an oculist. He had recently met with a peculiar case. The patient was a Kanaka, with double cataract. He made the preliminary incision on the right eye, and gently grasped the iris, when, to his surprise, that structure came away in its entirety. When operating upon the left eye he was still more cautious, and grasped the iris with the greatest care, making no perceptible traction, but it also came away. He had watched the subsequent progress of the case, and with this exception it had been most satisfactory. On careful inquiry, he ascertained that there was no history of leprosy, but that the subject had had tertiary manifestations of syphilis.

Dr. Wm. Ellery Briggs, of Sacramento, had noticed the extremes to which some oculists have gone in doing away with bandages, and giving the patient liberty in moving about. It seemed to him almost foolhardy to operate for cataract, and to send the patient home with no bandage, and with one eye open. He would not attempt that. In regard to enucleating eyes, having had sad experience in several cases, he now advised enucleation when the eye was totally blind, and where a foreign body was probably present. He recalled two patients who had lost their eyes, one of whom would not submit to enucleation, though advised to do so. The other, having gone into the country for two days when ordered to remain under observation, returned with sympathetic ophthalmia, and after brief treatment went to other oculists, but is now an inmate of the asylum for the blind. He often enucleated eyes which appeared well, but he did not think that he had ever enucleated an eye which would be of any use as an organ of vision. When the vision is gone the surgeon is justified in removing the eye, if there is a possibility of sympathetic ophthalmia.

Dr. Pardee, in replying said that he would certainly enucleate an eye when there was any danger of its affecting the other eye. He was also in favor of enucleating when vision had been lost.

THIRD DAY—FRIDAY, APRIL 20—MORNING SESSION.

Committee on Medical Legislation.—The report of this committee, which had been made a special order for this session, was taken up. The Chairman, C. E. BLAKE, of San Francisco, presented, as the report of the committee, a medical bill, which he submitted for the consideration of the Society. The bill, which discusses the subject at some length, contains several important provisions, and in its general tenor conforms to a resolution introduced by Dr. Plummer at the meeting of 1887, and which was adopted by the Society. A board of seven members, to be known as the "Board of Medical Examiners of the State of California," is to be appointed by the Governor, the conditions of appointment, official tenure and expenses being provided for. Every person intending to practise medicine in the State after the passage of this Act, must have a diploma or license from a legally chartered medical school or institution. Such school or institution being defined by the Act, and a certificate from the Board of Examiners. This certificate can only be obtained by examination of the applicant, in anatomy, physiology, pathology, chemistry, toxicology, surgery and mechanical obstetrics. The fee for the certificate will be $20, and it must be recorded in the office of the Clerk of the county in which the holder is practising. The certificate may be refused or revoked on the ground of unprofessional conduct, which is fully defined—the applicant being cited to appear before the Board to be heard in his own defense. The Act will be printed in full in the transactions of the Society.

DR. H. S. ORME, of Los Angeles, concurred in the bill, with the exception of section 14, relating to fines, which, as well as the penalty, he thought were too small. He believed that half of the fine should go to the informer. This would materially assist the working of the Act. In every community there are persons who are willing to do this work, and this will compensate them for the service that they rendered.

DR. H. J. CRUMPTON, of Sausalito, said that he had had some experience in the working of the medical law. He regarded this Act as a decided improvement on that at present in force. He thought that after the deliberate action of the committee, assisted by the legal member of the Society (Dr. Taylor), that it would be unwise to attempt to tinker with it. He favored placing it in the hands of the Committee on Legislation, for presentation to the Legislature, and would urge upon every member of the Society the necessity of earnest personal effort in its behalf. The people demand that pilots, who bring ships into port, shall have a license, or that a man who takes charge of a locomotive must know something about it, but they seem willing that any irresponsible confidence operator may assume the *rôle* of doctor.

DR. G. F. G. MORGAN, of San Francisco, said that several years ago he had attempted to enforce the medical law, but he signally failed. If there had been a provision whereby half the fine would go to the complaining witness, there would have been at least fifty witnesses in that community.

DR. ORME offered as an amendment, "That half of the fine imposed shall go to the informer, and the other half to the school fund of the State."

THE PRESIDENT suggested that the question might be put, "That it is the sense of this Society that such a change should be made, and that the matter be left in the hands of the Committee, with power to act."

This was unanimously adopted by the Society.

Recommendations of the President's Address.—The Committee on this subject, through its Chairman, C. E. BLAKE, of San Francisco, re-

ported that the President be commended for his zeal and industry on behalf of the Society during the past year, and that the recommendations contained in the address, particularly those relating to preventive medicine, be endorsed by the Society. The Committee presented a draft constitution and by-laws, to be acted on at the next annual meeting.

The report was adopted.

Committee on Obstetrics. — The report of the Committee on Obstetrics was read by WALTER LINDLEY, of Los Angeles. Formerly, when hemorrhage indicated the onset of abortion, he administered small doses of ergot. He has found that a combination of ergot and morphia, in threatened abortion, had frequently prevented it. In inevitable abortion he did not believe in ergot, as it produced painful tetanic contractions. In labor he believed that it should never be given, until the uterus was emptied, In normal cases, he did not deem it necessary, but in cases of flooding, used it hypodermically. He believed that topical measures were more important. After *post-partem* hemorrhage is controlled, ergot may be advantageously given, but it should not exclude other measures. It certainly did not hasten involution. He concluded that ergot should be used only as a hemostatic. 1. In abortion it can be given combined with morphia, to prevent or delay. 2. In labor, it should be given only after the completion of the third stage and subsequently.

DR. W. A. BRIGGS of Sacramento, in opening the discussion, said that not more than 50 years ago a celebrated surgeon arose before the British Medical Association and exclaimed "Thank God I know nothing of obstetrics." The retort was as keen as the exclamation; "If the gentleman is thankful for his ignorance, he has much to be thankful for." He referred to this simply to show the position of obstetrics to-day as compared with its position 50 years ago; an advance that must be grateful to us all. Pajot, as Dr. Lindley has stated, as well as Charpentier, discard ergot before the uterus is empty. Many of our own obstetricians do the same. One thing he regards as of extreme importance, because it confirms the conclusions naturally derived from our knowledge of the immediate action of ergot, and that is the result of the clinical studies made by Blanc and Ganzanotti, in regard to the influence of ergot in child-bed. Ganzanotti has experimented on 31 cases. He administered ergot during the lying-in period, and found that instead of hastening involution, ergot really hinders it. Blanc reports 82 cases. To 40 of these he administered ergot regularly for the first five days of child-bed. From 40 others of the series he withheld ergot. To 12 others he administered ergot for 10 days, and he found that in this series the uterus had attained a measurably greater involution in the 40 cases in which ergot had been withheld than in the 40 cases to which it had been administered for five days, and in these even a measurably greater involution than in the 12 cases to which ergot was given during the full ten days of the lying-in period. This is in accord with the clinical observations of such men as Pajot, Charpentier, Goodman, Reamy and numerous others, whose names are perfectly familiar to us all. He was fully in accord with the principle laid down in the report of Dr. Lindley, with the possible exception of the use of ergot in abortion. It had been his habit not to administer ergot in abortion at all. The chief objection to its use in this condition is that it is so very likely to imprison the fetus within the uterus. There are other subjects within the scope of this committee, which the Chairman has left to other members, one of whom he believed would present a report on Electricity in Obstetrics. There is one point which seemed to him of the utmost importance, and that is antisepsis in labor. He believed the greatest progress in obstetrics within the last year had been accomplished in this direction, and

as one who has strenuously advocated antisepsis not only in labor, but in surgery generally, he must confess to great satisfaction in the remarks made in his Birmingham address by that arch opponent of antisepsis, Mr. Lawson Tait, who there confessed and asserted that it is the duty of every obstetrician to adopt antisepsis in labor. A very seductive term has been invented by those who, it seemed to him, want to get back into the fold without climbing the fence, and that is the word asepsis. The object of antisepsis is asepsis. If the believer in antisepsis is certain of asepsis, his object is attained. But those who talk so much about asepsis employ antiseptics for accomplishing their purpose for disinfecting, or, as they might say, "cleansing" their sponges, their hands, their instruments and even their patients. It seemed to him that this is rather quibbling, and that in obstetrics, as in surgery, we should adopt a strict antisepsis. Let us have asepsis *via* antisepsis.

Place of Next Meeting.— The selection of the place of next meeting, which had been made a special order for this session, was taken up. A cordial invitation was extended to the Society on behalf of San Diego, and its claims, with the solid advantages to the Society, were ably advocated by the representatives from the Southern section, and endorsed by those elsewhere. Oakland was also mentioned, but was subsequently withdrawn, in favor of San Francisco, which, after a close contest, was selected for the meeting of 1889.

Committee on Medical Education.— The report of the Committee on Medical Education was read by the Chairman, J. P. WIDNEY, of Los Angeles. The writer believed in the multiplication of schools, but would rigidly fix their requirements, demanding a three years graded course, and granting only the degree of M. B., which would not qualify for practice. A medical department connected with the State University, well endowed, and providing only for the higher education, should be provided. This would grant the degree of M. D. The result would be the establishment of one standard of education, and that a high one. He would allow any student of medicine, irrespective of his tenets, if well educated through a three years course, to enter the higher course in the State department. This would result in a better working of the medical law, by making the profession a unit.

AFTERNOON SESSION.

Electrolysis in Stricture of the Urethra.—DR. A. M. GARDNER, of Calistoga, read a paper on Electrolysis in Stricture of the Urethra, which entered fully into the history of this method of treatment, and reported several successful cases.

Committee on Indigenous Botany.—The report of this committee was read by W. P. GIBBONS, of Alameda. He treated of the medicinal plants peculiar to the State, and alluded to the fact that some of the modern "new remedies" had been in constant use for many years past.

DR. M. M. CHIPMAN, of San Francisco, made a supplemental report in which the long continued services of Dr. Gibbons, both to the profession at large and to the Society, were justly recognized.

The sentiments contained in the report were endorsed, by resolution, of the Society.

Committee on Practical Medicine and Medical Literature.—The report of the Committee on Practical Medicine and Medical Literature, was read by S. O. L. POTTER, of San Francisco. He alluded to the tendency in force to confine prescribing to a single drug, and remarked that the routine prescription of former days is disappearing. He mentioned the increasing number of coal tar products, and to the possibility, as expressed

by Brunton, that these artificial products might ultimately replace the organic drugs. He expressed the opinion that the germ theory of disease was at present not accepted. The two objections were, first, that in experiments, it was never absolutely certain that portions of the culture fluid might not be transferred with the microbe; it was also uncertain what was the exact nature of the soil on which the transportation was effected.

Dr. W. F. McNutt, of San Francisco, in opening the discussion, said that he would allude to two points: the slow progress of the science and art of medicine, and the part that microörganisms play in disease. The reason why the science and art of medicine has progressed so slowly, is probably not the fact that we run from one new medicine to another, as Dr. Potter would make us believe, but that we have been trying to develop a science by merely developing the art, or the practical part of it. There is a science and art of medicine, and the application of therapeutics is largely an art. The great future for our science is preventive medicine, and the road along which the science of medicine must be developed is pathology. The key note to preventive medicine and the study of pathology is etiology, and etiology is a new science. Etiology has been studied but a few years. In our student days we heard nothing of etiology, yet we can say that it is absolutely impossible to understand or develop the science of medicine or to understand pathology without etiology. Etiology, then, is the key of the scientific part of medicine. No matter what we may believe about microörganisms, etiology cannot be advanced without taking them into consideration. There is a fact in it that must be admitted or disproved, while the methods of investigation may, and ought to be, questioned, while much of it cannot be substantiated, yet, step by step, it is making way. For instance, the doctor mentioned actinomycosis. What could the pathologist do for that without understanding its etiology? We find a few abscesses perhaps, about the angle of the jaw, and we talk of blood poisoning, but the microscope shows us the microörganism—the spreading fungi and the actinomyces—and then we understand the pathology of that disease. Take what we used to call endemic hematuria—How much did pathology and therapeutics do to explain it until the etiology of the disease was discovered. When we found that the parasites that produced it were confined to places in Egypt, Mauritius, Cape of Good Hope and other places, then we understood the pathology and the treatment of this affection. Take uremic poisoning—What did pathologists do to explain it, until we understood that uremic poisoning did not depend upon urea in the blood or upon ammonia, but upon the fact that the epithelial lining of the uriniferous tubules failed to secrete urea from the excretions that were producing the symptoms? Then we understood the etiology, and the whole thing was perfectly plain. The path along which pathology must be developed, and scientific medicine must be advanced, will depend upon our progress in the study of etiology.

Dr. J. H. Stallard, of San Francisco: As the question before the meeting seems to turn somewhat on the advancement of medicine, I probably may be permitted, as one of the oldest members of the profession present, to take exception to the position of the Chairman of the Committee, and also to that of the gentleman who has opened the discussion. When I look back, I am sorry to say, very nearly fifty years, since I was a student, it seems to me that in no profession, and in no department of science, has a greater progress been made, than in the art and science of the profession to which we belong. I remember perfectly well seeing one of the most distinguished physicians in my native city under the delusion that he was suffering from congestion of the brain, the result of long and arduous work, with twenty-four leeches around his head, and a considerable number of empty bottles, the contents of

which he had consumed himself. I have seen the time that that gentleman thought it his duty to prescribe a quart bottle of medicine for a child four years old; and when no physician visited a patient, whether two or three times a day, without writing a fresh prescription, and, I say, that in this particular, and in many others, there has been a vast progress. It is forty-five years ago since I was the first practitioner in my native town to discard the principle of being paid by the amount of physic that I poured into a patient's throat; but it was the most unfortunate piece of business I ever did in my life, for I destroyed my practice for a considerable length of time. People only desired to pay for what they swallowed, and physicians would prescribe four doses of medicine a day, two to be taken at night time, with an embrocation, a lotion and a blister. But all that has now passed away. In my opinion, there is a great advancement in the art of medicine, and I do not think we have anything to be ashamed of in the progress we have made in the last forty or fifty years.

Dr. A. Abrams, of San Francisco, believed that Dr. McNutt had slightly exaggerated the benefits derived by practical therapeutics from our advanced knowledge of the etiology and pathology of diseases. Uremia having been mentioned, he would take this as an example. The etiology of uremic intoxication can, for all practical purposes, be explained by the ingenious mechanical theory of Traube, or the more ingenious theory of Frerichs. The chemical theory of Frerichs supposes that the retained urea in itself does not produce uremia, but only by its further conversion, by means of a ferment, into carbonate of ammonia. There is much clinical evidence in support of this theory, and it is accepted by most authors as correct. According to this theory, the administration of acids would at once neutralize the ammoniacal condition of the blood and cure the disease. How successful we have been with the acid treatment needs no comment. To get rid of the retained products of tissue metamorphosis by the compensatory emunctories constituted the old treatment, and it would seem to be but little modified by the recent developments of pathology. Because we know that the epithelium lining, the uriniferous tubules does not properly secrete, is but little aid to our inefficacious therapy Bacteriology has held out more seductive inducements to therapy than any other development of medicine, and it is a sad commentary on medical science to find how disappointed we have been. Although we cannot deny the benefits afforded by antiseptic medicine, the good achieved belongs rather to prophylactic than to curative medicine. The course or duration of the infectious diseases, where pathogenic microbes have been recognized as etiological factors, have been but slightly modified by a practical therapy founded on bacteriological investigations. Our more recent knowledge of bacteriology relegates the microbes to a secondary place, attributing the pathogenesis to the development of ptomaines. To oppose the virulent action of these ptomaines constitutes, then, the future basis for rational therapy. The speaker suggested the use of the term *ptomainemia* to designate that condition following the absorption of the ptomaines.

The Index Medicus.—On motion, the Society decided to subscribe for one copy of the *Index Medicus*, to be placed in the hands of the Secretary.

Two Views on the Practice of Medicine.—Dr. Geo. W. Westlake, of Red Bluff, read a paper on "Two Views on the Practice of Medicine."

Committee on Gynecology.—The report of the Committee on Gynecology was read by C. Cushing, of San Francisco, on the subject of the Condition of the Abdominal Organs Requiring Abdominal Section. This must sometimes be done for purposes of accurate diagnosis. Cases

of extrauterine pregnancy required operation. This was frequently diagnosed at an early date. He reported a case of suppurating pelvic hematocele which was not cured by drainage through the vagina, and required section. Section should be performed in these cases, as it ensured thorough cleansing and perfect drainage. A prolapsed, fixed and tender ovary should, under certain circumstances, be removed. He ascribed many of the attacks following examinations by sound or other means to the expulsion of some of the secretions from the diseased tubes into the peritoneal cavity. He believed that these cases required operation. In uterine fibroids where hemorrhage was serious, or if the tumor was large, operation was demanded. He believed that with due precaution any intelligent practitioner was justified in an emergency in performing these operations.

EVENING SESSION.

Committee on Prize Essay.—DR. M. M. CHIPMAN, Chairman of the Committee, reported that only one essay had been presented, and recommended that no prize be granted. He further suggested that in future the subject should not be specified, and that the writers should conceal their names and designate their essays by a motto. The Society, by resolution, endorsed the recommendation.

Committee on Graduating Exercises.—DR. O. O. BURGESS, of San Francisco, reported that forty-four students had been graduated from the two colleges in San Francisco. A thorough examination of the papers had been made, and he was satisfied that the diplomas were fairly earned. The standard appeared to be fully equal to that of any other medical college, and the only point to which he would particularly call attention, was the necessity for more thorough preliminary education. It was also recommended that in future one member of the committee be resident in Los Angeles, so that the medical college of that city might also be examined. The Society, by resolution, endorsed the recommedation.

Special Committee on Building.—DR. W. F. MCNUTT, of San Francisco, reported that he had called a meeting of the committee but failed to obtain a quorum, and therefore no business was transacted. The report was received and the committee discharged.

Treasurer's Report.—The Auditing Committee, to which had been referred the report of the Treasurer, Dr. G. C. Simmons, reported that the accounts were correct. The books showed a balance of $742 75 in favor of the Society.

A Medico-Legal Board.—The proposed amendment relating to the establishment of a Medico-Legal Board was brought up for discussion, and on motion, was referred to the Special Committee on Constitution and By-Laws. Several members objected to the amendment on the ground that it involved the Society, hampered the Board of Examiners, and had proved a failure in other countries.

Experiences of a Country Doctor.—Under this title, DR. H. J. CRUMPTON, of Sausalito, read a short, but very humorous paper, replete with incident and anecdote.

Installation of Officers.—The business of the session being concluded, the retiring president, Dr. R. H. Plummer addressed the Society. He alluded to the responsibility and the labor which the presiding officer necessarily assumed. To him it had been a source of anxiety, but also of pleasure. Two years ago the Society numbered but 200 members, at the close of this meeting it included 450. The contributions had been

numerous and creditable. Three years ago the annual meeting lasted for two days only, and the evening of the second day was devoted to a banquet. On this occasion it was found that three days were not sufficient, and the question of a four day's session would have to be considered. He alluded to the number of visitors from the southern section of the State, and to the number of applications for membership which had been received from that locality, and expressed the opinion that the meeting of 1890 would be held in Southern California. He thanked the members for their hearty coöperation during the year and at the meeting. In introducing the President-elect, he alluded to his faithful services in the cause of the Society, and to the conscientious and thorough discharge of the duties that had been assigned him.

Dr. James Simpson, the President-elect, in thanking the Society for the honor which it had conferred upon him, said that he fully realized its responsibilities. He alluded to the reorganization of the Society in 1870, when it seemed more than doubtful that it would ever attain its present proportions. He said that the officers elected were expected to sacrifice their time to the Society, and that they must give it all the attention that it demanded. He concurred in the opinion of Dr. Plummer, that the meeting of 1890 would be held in the South. The State was a large one, and members must expect to travel considerable distances. In conclusion he promised to use every effort on behalf of the Society, and to do good and faithful work.

New Members. — At the different sessions the following were duly elected members of the Society:

Adams, George
Alford, F. A.
Anderson, A.
Bailey, J. E.
Barber, D. C.
Bicknell, F. D.
Booth, Jas. P.
Borde, H. J.
Boyce, J. F.
Brainard, H. G.
Brummet, S. B.
Carpenter, Lewis
Cook, Wm. Harris
Crepin, E. A.
Darling, A. F.
Davis, T. A.
Dodge, Wm.
DuBois, H. A.
Foote, Gilbert
Forrest, John M.
Hart, A. J.
Haynes, F. L.
Hogshead, A.
Holland, L. T.
Johnson, Chas. M.
Jones, Caleb V.
Knox, S. P. P.
Kurtz, James
Larkin, John
Lasher, George W.
Leonard, J. T.
Mack, W. E.
McMonagle, Beverley
Maynard, H. H.
McDougall, W. D.
Melton, Lewis
Merritt, Emma S.
Merritt, Geo. W.
Miller, J. H.
Murphy, W. W.
North, Thos,
Northup, D. B.
Otto, G. W.
Paterson, E. M.
Pearson, J. E.
Pond, R. B.
Posey, A. C.
Reading, J. W.
Rogers, A. C.
Senftleben, Hugo
Siefkes, John L.
Smith, E. R.
Snider, J. R.
Shearer, M. M.
Stockton, Thos. C.
Szigerthy, A. C. H. de
Taylor, Albert M.
Todd, J. C. R.
Thomas, George P.
Trembley, F. X.
Valle, Charles C.
Wharry, Charles J.

THE EXHIBITION.

A spacious room, adjoining the large assembly hall, was well filled by the various firms, who were anxious to attract the attention of the Society. This new feature was a great success — in fact it proved so attractive that on several occasions, during the meeting, committees were appointed to bring in the members who were sampling the junket and and cocoa, and stocking their pockets with pills and powder, baby food, and concentrated nutriment for all ages. We append some notes on the different exhibits.

Fairchild Bros. & Foster — Had a handsome exhibit, including scale pepsin, extract of pancreatis, peptonizing tubes, peptogenic milk powder, essence of pepsin, and diastasic essence of pancreas, with their digestive tablets. An interesting feature was a comparative test of scale pepsins in the market, made by Wakelee & Co., of San Francisco, showing the relative activity of the ferments. 1,200 grs. of coagulated egg albumen had been acted upon by the pepsins, demonstrating that Fairchild's was three times more active. The object aimed at with the peptogenic powder is to produce a close substitute for human milk. The process of peptonization was practically demonstrated, attention being called to the absence of coagula or the addition of an acid. They also exhibited junket (freshly made), prepared from their essence of pepsin. This is a valuable addition to the sick dietary, and was highly appreciated by the visitors.

The Chas. H. Phillips Chemical Company—Of New York, exhibited their syrup of wheat phosphates, wheat phosphates acid, milk of magnesia, phospho-muriate of quinine co., their palatable cod liver oil emulsion, and the digestible cocoa. The cocoa was served during the meeting, and was largely patronized. They claim that the entire fat of the bean is retained, and is digested by pancreatin during the cooking process.

Parke, Davis & Co.—This popular firm exhibited by sample only. Their many friends will find them as courteous, prompt and reliable as ever.

Reed & Carnrick — Exhibited their soluble food, beef peptonoids, liquid peptonoids, liquid peptonoids with cocoa, and cod liver oil and milk. This firm have recently been compelled to further increase its facilities, as the demand for their preparations is in excess of the means of supply. The advantages claimed for their soluble food is that it is complete in itself, not requiring the addition of any food agent. This, in hot weather, is an obvious advantage. Their peptonoids are guaranteed to contain 95 per cent. of nutrients, one-fourth of the beef peptonoids being predigested.

Wm. Hatteroth.—San Francisco: Exhibited a full line of surgical instruments, including deformity apparatus of their own manufacture.

John Wyeth & Bro.—Had the largest exhibit in the hall. It comprised samples of their elixirs in formidable bottles, many other fluid preparations, pills and tablets. The compressed tablet triturates attracted much attention. The profession will be gratified to learn that they have resumed the manufacture of the antiseptic tablets. The coloring matter has been omitted, but each tablet is stamped with the word "poison." Samples of this useful agent seemed in great request.

Wm. R. Warner & Co.—Exhibited a full line of their preparations, including their celebrated pills and parvules. That excellent preparation, Bromo-soda, was prominently displayed. Every physician should keep a bottle of this on hand for personal use. There is no greater boon to the tired and exhausted brain-worker than bromo-soda, and a limited personal experience will effectually confirm its value.

J. H. A. Folkers & Bro.—Exhibited a fine display of surgical instruments, including Geo. Tiemann & Co.'s latest manufacture. Most phyicianss have, at some time, ascertained that there is no economy in buying cheap and inferior instruments. Tiemann's instruments are not cheap, but in quality they are unsurpassed by those of any maker, and their employment is a guarantee of effectiveness and durability.

The Horlick Food Co.—Had their popular infant food on exhibition, and samples were freely appropriated.

Mellin's Food—Was on exhibition. Amongst the many candidates for nourishing the coming generation, this old established product survives and flourishes.

Nestle's Food—Was exhibited. This food has an international reputation, and has been endorsed by the highest authorities.

Redington & Co.—In the centre of the hall was a handsome stand of which California physicians can be justly proud. Redington & Co. make on this coast almost every fluid preparation manufactured anywhere. Recently they have added to their facilities a full plant for the manufacture of gelatine-coated pills which, in appearance, are undistinguishable from those of their Eastern rivals. Physicians will note with interest that private formulæ will be put up in any quantity from 1,000 upward. They also exhibited their bitterless cascara products and wine of coca. It is unnecessary to say anything respecting the quality of their manufactures, as every member of the Society has, no doubt, had personal and satisfactory experience. A useful memento distributed by the exhibitors was "physicians test paper." Red and blue litmus paper was cut in strips and placed in separate vials properly labeled. These are always useful, a fact amply proved by the general demand that was made for them.

Wm. S. Duncombe & Co.—Showed a very ingenious fracture bed, the John A. Barrett chloride of silver battery, the Searby bed pan and the Wallian Oxygen Manufacturing Co.'s apparatus.

Miscellaneous.—Geo L. Goodman & Co. showed specimens of printing and binding. The Harris faradic battery and the Harvard chair was also on exhibition. The Marks' surgical chair and an automatic operating lounge was also displayed.

PUBLIC HEALTH.

By W. R. Cluness, M. A., M. D., Sacramento, Cal.

Mortality.—1,098 deaths were registered in 93 town districts in the State during the month of March, corresponding to an annual rate of 16.92, a thousand of the aggregate population reporting, which was 772,750. 157 deaths resulted from zymotic diseases, giving an annual rate of 2.43 a thousand, as against 2.74 for the month of February, and 4.42 for that of January. Of these, 44 were referred to diphtheria, 10 to scarlet fever, 24 to measles, 15 to small-pox, 5 to whooping cough, 10 to remittent fever, 24 to cerebro-spinal fever, and 6 to erysipelas. 348 deaths resulted from diseases of the respiratory organs, giving an annual rate of 5.4 a thousand. Of these, 191 occurred from consumption, 115 from pneumonia, 28 from bronchitis, and 15 from pulmonary congestion. The average annual death rate, from all causes, occurring in the ten largest cities and towns in the State, and representing a population of 558,000, was 17.28. The highest rate occurring in cities of 10,000 or more inhabitants, was reported from Pasadena, being 22.80; the lowest, 10.40, was reported from Stockton.

METEOROLOGY.

By J. W. ROBERTSON, B. A., M. D., Assistant Physician to the State Asylum for Insane, Napa, Cal.

CALIFORNIA—TABULAR STATEMENT FOR MARCH, 1888.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No. of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn.....Cal.	51.3	76.0	33.0	.....	.....	.....	.....	3.25	.....	.....	.....	.....	SE.	Southern Pacific Co.
Colfax..... "	49.0	78.0	30.0	.....	.....	.....	.....	.10	.....	.....	.....	.....	S.	" " "
Eureka..... "	47.7	67.8	32.5	54.3	41.9	12.5	13	4.09	79.1	9	8	14	N.	Signal Service U.S.A.
Fresno..... "	54.1	77.1	28.1	65.5	41.6	23.9	8	1.95	74.6	18	10	3	NW.	" " "
Keeler..... "	50.6	72.5	27.0	61.7	39.8	21.9	4	0.30	40.3	17	13	1	S.	" " "
Los Angeles.... "	57.0	78.0	38.0	.....	.....	.....	.....	4.63	.....	.....	.....	.....	W.	" " "
Monterey..... "	54.6	66.0	43.0	.....	.....	.....	.....	3.29	.....	.....	.....	.....	SE.	Southern Pacific Co.
Napa..... "	49.5	70.0	33.0	57.6	41.4	16.3	7	4.34	.....	15	11	5	S.	Sta. Napa Ins. Asylum
Oakland..... "	52.2	71.0	38.0	.....	.....	11.0	8	4.44	85.6	14	8	9	NW.	J. B. Trembley, M.D.
Paso Robles.... "	51.9	76.0	23.0	.....	.....	.....	.....	4.50	.....	.....	.....	.....	S.	Southern Pacific Co.
Red Bluff..... "	54.5	77.8	32.0	63.8	43.4	20.5	12	3.47	54.2	14	10	7	N.	Signal Service U.S.A.
Sacramento. ... "	53.6	76.5	37.0	62.7	44.5	18.6	8	5.04	67.7	17	8	6	NW.	" " "
San Diego..... "	55.8	70.0	41.0	62.2	48.8	13.4	10	2.79	81.4	9	10	12	NW.	" " "
San Francisco.. "	52.5	73.7	38.0	60.2	46.7	13.5	11	3.60	72.9	13	9	9	W.	" " "
Santa Barbara.. "	53.0	75.0	37.5	.....	.....	17.0	.....	3.8	.....	17	4	10	W.	Hugh D. Vail.
Santa Cruz ..... "	54.8	77.0	38.0	.....	.....	.....	.....	4.61	.....	.....	.....	.....	S.	Southern Pacific Co.
Yuma.....A. T.	62.5	86.8	37.0	75.6	47.1	28.5	1	0.05	47.6	21	9	1	S.	Signal Service U.S.A.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At the regular meeting of the Board of Examiners, held April 4th, 1888, the following physicians were granted certificates to practise medicine and surgery in the State:

G. A. Anerswald, San Diego; St. Louis M. Coll., Mo., Mar. 5, '80.
E. C. Armstrong, Santa Ana; Women's M. Coll., Penn., Mar. 11, '69.
Rhodes W. Bunnel, S. Francisco; M. Coll. of Ohio, Cincinnati, Mar. 1,'48.
H. H. Clark, Auburn; M. Coll. of Ohio, Cincinnati, Mar. 1, '71.
Geo. M. Dagwalt, San Francisco; M. Dep. Univ. of Tenn., Feb. 26, '84.
Paul DeGroote, San Bernardino; Univ. of Liége and Brussels, Belgium, Apr. 2, '64.
Shelby Martin Dodson, Santa Clara; St. Louis M. Coll., Mo., Mar. 4, '64.
Chas. C. Gorham, San Diego; St. Louis M. Coll., Mo., Mar. 3, '87.
Bartlett Yancy Harris, Eureka; Coll. of Phys. and Surgs., Chicago, Ill., Feb. 28, '88.
Theron White Horton, Earlham M. Dept. Univ. of Keokuk, Iowa. Feb. 10, '63.
J. H. Hurley, San Bernardino; Cincinnati Coll. of M. and Surg., Ohio. June 19, '65.
Martin B. Kellar, San Diego; Miami M. Coll., Ohio, Mar. 1, '68.
Louis George LeBeuf, Los Angeles; Tulane Univ. of Louisiana, Mar. 30,'87.
Wm. McNaul, Traver; M. Dept. Univ. of Wooster, Ohio, July 3, '84.
John D. Meng, Oakdale; Coll. of Phys. and Surgs. Keokuk, Iowa, June 14, '77.
Chas. E. Parent, Dunsmuir; Bishop's Coll., Montreal, Canada, Mar. 3,'85.
Willis J. Peak, Pomona; St. Louis Med. Col., Mo., Feb. 22, '61.
Jas. J. Powers, Tulare; Coll. Phys. and Surgs. Baltimore, Md., Mar. 1, '81.
Elbert Pinney, Los Angeles; Starling M. Coll., Columbus, O., Feb. 22,48.
John Ellis Rodley, Mar. 2, ,81.
Howard W. Scaright, Folsom; M. Dept. W. Res. Univ., O., Mar. 14,'82.
E. C. Thatcher, San Diego; Univ. of Penn., Penn., Mar. 14, '86.
Fey Watanabe, San Francisco; M. Dept. Univ. of Cal., Cal., Nov. 15,'87.
Phineas S. Watson, San Jacinto; Cincinnati Coll. of M. and Surg., O., Feb. 21, '72.
Clarence Alfred Weayant, Rialto, McGill M. Coll. Montreal, Canada, Mar. 31, '79.
Cecil Ernest Wasgutt, Los Angeles; Bowdoin M. Coll., Maine, July 13, '82.
W. A. Whitlock, San Jacinto; M. Dept. Univ. of Tennessee, Feb, 24, '85.

WM. M. LAWLOR, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from March 20th, 1888 to April 20th, 1888.

Assistant Surgeon E. A. Mearns, Fort Verde, Arizona, to Fort Snelling, Minnesota. S. O. 1879, A. G. O., April 6, 1888.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (District of the Pacific), from March 20th, to April 20th, 1888.

Past Assistant Surgeon P. C. Kallock, reported for duty at United States Marine Hospital, San Francisco.

Assistant Surgeon W. D. Bratton, promoted to grade of Past Assistant Surgeon, from April 6, 1888.

Sacramento Medical Times.

VOL. II. JUNE, 1888. No. 6.

NOTES FROM THE PARIS CLINICS.

Specially reported for THE MEDICAL TIMES.

Potain—The Circulation in Bright's Disease.

Among the morbid symptoms presented by the circulation in this affection, the increase of arterial tension may be ranked foremost. Three hypotheses have been advanced to explain this phenomenon: 1. Increased cardiac energy. 2. An increase in the total mass of blood. 3. The excessive resistance of the peripheral vessels.

Prof. Potain rejects the first of these explanations, and asserts that cardiac energy is in proportion to the degree of resistance offered by the blood. When this resistance becomes excessive, the pressure is lowered, and contraction ceases. Marey has shown how, in a tortoise's heart separated from the body, which will continue to beat a long time while the circulation is maintained in the cavities, the resistance of the ventricle may be modified by raising the escape orifice of the arterial tube. Prof. Potain believes that in no affection is increased action of the heart a primary cause of increased arterial tension. In Bright's disease, this increased pressure is observed some time before the appearance of cardiac hypertrophy. If, as has been supposed, the ventricle increases its action without any modification in the rest of the system, peripheral circulation would increase, and result in plethora. Patients suffering from Bright's disease, on the contrary, are pale and present an anemic appearance.

The second hypothesis, by which increased tension is attributed to the increase in the volume of the blood, is open to many objections. It is impossible to ascertain the exact quantity of blood in human beings. From clinical observations, he is convinced that plethora does not exist in Bright's disease. In this affection the urine does not diminish, but increases, as the arterial pressure is raised, and it is only when this pressure diminishes, that oliguria is usually observed.

In discussing the third hypothesis, by which the arterial pressure is regarded as due to the excessive resistance of the peripheral vessels, Prof. Potain mentions the fact, asserted by physiologists, that arterial tension increases with contraction of the blood vessels. He considers that the resistance offered by the blood does not take place, as has been supposed, in the veins, but in the capillaries. This would explain the reduced circulation in the small vessels, and the anemic appearance which results. The vessels in the kidney have a partial, though slight, influence in determining the increase of arterial pressure. This is far

from being the exclusive cause of this pressure. The deterioration of the capillaries themselves has been clearly demonstrated. This deterioration has been described by some as hypertrophy of the contractile elements of the small vessels. Gull and Sutton have described it as *arterio-capillary-fibrosis.* But unless arterial tension is increased at the beginning of the affection, it must be accounted for by some spasm which constitutes an obstacle in the vessels, for the deterioration of these vessels cannot exist at the onset. This spasm, which may occur in interstitial nephritis, is apparently absent in other affections. Bright believed that irritation was produced in the vessels by impure blood.

He raised the question whether a contraction proceeding from the kidney by reflex action, might not occur. The kidney is known to be the starting point of certain reflex actions, proceeding to the periphery. In unilateral lesion of the kidney, unilateral anasarca is sometimes observed. It is therefore possible that vascular contraction and peripheral ischemia may be produced by reflex action. Different authors have sought to confirm Traube's theory, which ascribed increased arterial tension to the suppression of renal circulation. Alexander, Rosenstein and others attempted to produce cardiac hypertrophy and increased arterial tension by nephrectomy, or by ligating the renal arteries, but failed in both instances. Others have produced a renal affection followed by increased tension and cardiac hypertrophy, by merely contracting the nutritive artery of the kidney or tying the ureter. This result may be explained by the fact that the kidney was placed under pathological conditions, which engendered reflex actions, reacting on the heart and peripheral circulation. The fact that this reflex action is observed in interstitial nephritis, and is absent in catarrhal nephritis, cannot be satisfactorily accounted for.

Charcot on Aphasia—A Curious Case of Agraphia.

The patient, a woman, æt. 64, had some family history of nervous trouble. At the age of 44 hemiplegia in the right side, accompanied by paralysis of the tongue, appeared. After some time speech was restored and the patient recovered the movements of her right side. Since this affection, however, she has completely lost the power of writing. She has preserved the visual conception of the spelling of words, but cannot remember how to form the letters.

In 1879 she was affected with hemiplegia of the left side, and loss of speech. The latter was restored two years later, but the paresis of the left side persisted.

In 1885 a fresh attack appeared, followed by difficulty of articulation. Another attack occurred during the same year, which caused complete and permanent loss of speech. Since that time the patient has presented labio-glosso-pharyngo-laryngeal paralysis, and pseudo-paralysis of the medulla oblongata. At certain times deglutition was so painful that she had to be fed with an esophageal tube. The lips of the glottis could not be drawn together to produce phonation. The patient preserved the sense of the visual and auditory images, but she was totally deprived of the faculty of transmitting thought by written signs.

These symptoms constitute agraphia in its true form, which Professor Charcot defines as *aphasia of the hand.* This loss of coördination in the movements is quite independent of paralysis or paresis of the ordinary movements. Patients suffering from agraphia are able to copy drawings and written characters, or to sew and paint. In his lectures of 1883, Professor Charcot has described an instance of true agraphia, distinct from any other form of aphasia. He has shown that in other cases the graphic faculty may persist, while the other forms of language are absent and are supplemented in a certain degree by it. The fact that this faculty of expressing language by written signs, disappears in certain cases of aphasia and is preserved in others, clearly proves that it is distinct and independent of this affection.

Charcot regards the faculty of expression by words under four aspects, classed by Hartley, as follows: (1) The impression made on the ear; (2) The actions of the organs of speech; (3) The impression made on the eye by the written or printed characters; (4) The action of the hand in writing. If the recollection of one of these means of expressing language be suppressed, one or more forms of aphasia are produced. Aphasia is merely amnesia, and verbal amnesia, of however slight a form, is aphasia. The idea of amnesia applied to the sensory and motor centres separately, is in direct opposition to the theory of the absolute supremacy of the sensory over the motor centres, by which it is believed that the latter are only set in motion by the reflex power of the former. He rejects this theory entirely, and furnishes clinical evidence in support of the contrary belief. Cases of well characterized verbal blindness unaccompanied by any degree of agraphia are frequently met with. Verbal deafness unaccompanied by aphemia is not uncommon.

Professor Charcot insists particularly upon the various and relatively independent sources which furnish the elements of language. It is on this fact that he bases the doctrine of one form of language supplementing an absent form, and the method of reëducation by which such remarkable results have been obtained. A patient affected with verbal deafness, who does not understand the sense of words that are spoken by another person, may be made to grasp the sense of them by being made to articulate the words himself, or by being compelled to write them. In the first case the motor centre, by means of which articulation is effected, has supplemented the auditory centre; in the second case, the auditory centre has been assisted by the graphic motor centre.

The law by which the motor centres may be regarded as distinct and independent is, however, subject to exceptions. In certain cases the suppression of the visual and auditory sensory centres paralyzes the articulating centre, and produces ataxic aphasia or agraphia. The mechanism by which the representation of language is produced differs in different individuals. In some it is principally produced by one particular motor faculty—the visual, auditory, graphic or articulating motor centre. In others it is produced by any one of these faculties. In the latter case the motor centres are possessed of autonomy to a large degree, and when one of these centres is destroyed the phenomenon by which it is supplemented by one of the others is observed. Individuals

in whom the representation of language is produced by one particular motor centre are not so favored, for if this centre is suppressed, none of the other centres can take its place. In such cases a simple lesion in the auditory centre may determine verbal deafness, and even ataxic aphasia, although there is no alteration in Broca's convolution. In the same way, a lesion in the visual centre may produce agraphia without the existence of any lesion in Exner's centre (foot of the second left frontal convolution). All these cases which exclude the theory of the independent nature of the faculties of written language are easily explained in this manner, and in nowise contradict Charcot's doctrine, by which agraphia is to be regarded as a perfectly autonomous form of aphasia.

RHEUMATIC ENDOARTERITIS AFFECTING ONE OF THE AORTIC SIGMOID VALVES.

By J. H. Stallard, M. B. Lond., M. R. C. P.
San Francisco.

Mr. L——, æt. 56, was seized, in the middle of January last, with an attack of acute articular rheumatism. On the 15th he was seen by Dr. H. P. Maas, who found the joints of the left upper extremity much swollen and very painful. There was soreness of every part of the body; the digestive organs were very much deranged; complete anorexia, sluggish bowels, and only moderate pyrexia. Auscultation gave no evidence of cardiac implication. Under the administration of sodium salicylate and pepsin there was great improvement, and, at the end of a week, he thought himself well enough to dispense with the services of his physician.

On January 28th, Dr. Maas was again summoned. The patient had suffered a relapse. He had taken some very powerful medicine, under the advice of a neighbor. He was now in great misery from constant vomiting of bilious matter; considerable fever (102°, 103° F.); unquenchable thirst; great abdominal tenderness, with diarrhea, and complete insomnia. A strongly marked blowing systolic sound was now heard for the first time. During the next few days the patient's condition grew steadily worse. Intercurrent bronchitis was developed; there was almost constant cough, with some pain in the left side; his mind wandered; he was kept in bed with great difficulty, and subsultus tendinum was noticed.

On February 9th I was called in consultation. The patient was found to be suffering from rheumatic swelling of the left hand, wrist and elbow. There was also pain in the left side. The body generally was sore, and he was unable to turn himself in bed.

The thirst was unquenchable, and the anorexia complete. The tongue was dry and glazed. The bowels were distended and tender, with very free and frequent action. The urine was scanty, high colored and thick with urates. There was no albumin. Posteriorly there was dullness and fine crepitation over a considerable portion of the left lung. The hepatic dullness reached from the lower edge of the third rib to an inch below the cartilages. The cardiac area of dullness was greatly increased. The cardiac rhythm was regular, but the impulse was diffused and feeble. There was a soft to and fro *bruit*, heard loudest over the aortic valve. This *bruit* ceased for a short period, before the commencement of the systole. The second sound over the aortic valve was quite inaudible. The pulse was 90, regular, extremely sudden in its rise and fall; very compressible, and during the interval the radial artery could not be felt. This pulse was characteristic of a soft and unfilled artery.

Our diagnosis was acute rheumatic fever, with endocarditis affecting and destroying the efficiency of the aortic valve. Consequent on this was dilatation of the left ventricle and congestion of the lungs. As the stomach was so extremely irritable, it was agreed to give him one grain of sodium salicylate, and an equal quantity of sodium bicarbonate, at very short intervals, and one tablespoonful of brandy every three hours. After twelve hours, it was found that the medicines had been well borne, and after twenty-four hours the urgency of all the symptoms had much abated.

In the course of four days there was a manifest improvement. The pains had nearly disappeared; the temperature became normal; the skin very active; the tongue moist, and the thirst ceased. Fine crepitation was still heard in the left lung, but the cough was much better. The hepatic dullness decreased, and the appetite improved. The sodium salicylate was now suspended, and a small dose of strophantin was given every sixth hour.

On February 13th the ausculatory sounds were again verified, and a sphygmographic tracing (Fig. 1) was taken.

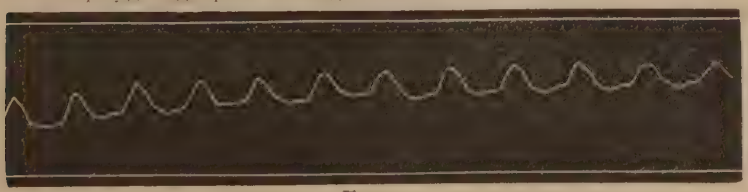


FIG. 1.
February 13, 1888, pressure 4 oz.

It will be observed that there is a complete absence of the aortic notch, a most satisfactory proof that the aortic valve was absolutely useless. In some of the pulsations on the right there is the indication of a feeble return wave, immediately preceding the systolic rise.

In tracing Fig. 2, taken next day, under a very low degree of pressure, on the radial artery, this wave is much more highly de-

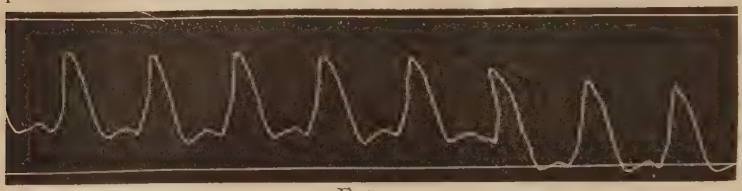


FIG. 2.
February 14, 1888, pressure 2 oz.

veloped at the lowest part of each pulsation. This wave was no doubt due to the reaction produced by the full distention of the ventricular walls, and affords a further demonstration of the completeness of the aortic regurgitation.

FIG. 3.
February 15, 1888, pressure 3 oz.

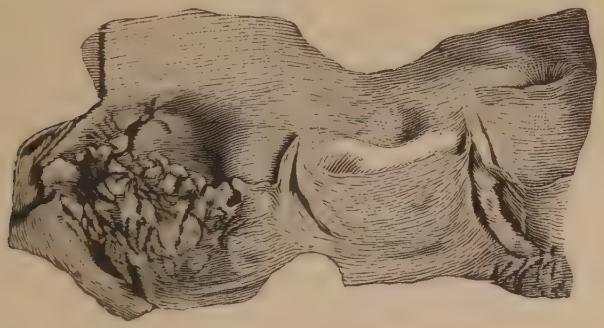
In tracing Fig. 3, this wave is almost entirely lost.

On the 15th of February, a distinct second sound was heard over the aortic valves. This could only be accounted for by supposing that some of the aortic cusps were still unimpaired by inflammation, and that they had been set free by the diminution of the inflammatory products. As all the other symptoms had improved, the prognosis became somewhat more favorable. These observations were made both by Dr. Maas and myself.

On the evening of the 15th, Dr. Maas was hastily summoned. The patient had been suddenly seized with frightful prostration and dyspnea. There was the wildest restlessness. The efforts to inspire were frightful and ineffective. The patient uttered most painful cries of anguish, which nothing seemed to relieve. The pulse was rapid and almost imperceptible. Morphine, ether and alcohol were administered by the mouth and hypodermically, but

in spite of every effort he died within an hour and a half after the seizure and in complete consciousness.

Necropsy—Unfortunately the necropsy was not made until forty-eight hours after death and then under the most unfavorable circumstances. There were already most marked signs of decomposition. The abdomen was distended with offensive gases, which burst out with great force when the peritoneal cavity was opened. The intestines were discolored. The pleural cavities were filled with dark colored putrid serum. The lungs were small, compressed and dark colored. The arteries, veins and bronchial tubes were filled with blood. The pericardium contained some dark colored serum. The cavities of the heart were enlarged, but the walls were soft and thin. There was a small patch of pericarditis in front, but no roughness or adhesion. The liver was about double its normal size. The spleen and kidneys were both large, but otherwise normal. The endocardium was smooth and transparent. There were no inflammatory deposits except upon one of the aortic sigmoid valves, as represented in the accompanying engraving.



It will be seen that the central cusp and also the one on the right are both normal, whilst that on the left is completely covered by rough inflammatory exudations, which were found covered up in clotted blood. It is probable that these deposits were larger during the acute stage of the disease than they were at death, as the margins are much rounded off. After absorption and contraction had taken place the other cusps had room to expand and reproduce the suspended second sound.

A vertical section of the inflamed part shows that the original elastic tissue of the valve was quite unaltered. It is, however,

covered by a layer of leucocytes, which also pervade the inflammatory products. Remains of blood were found upon the edges. Stained with gentian violet and decolorized in 70 per cent. alcohol, showed nests of blue in the inflammatory product, exactly corresponding to a colored plate in the beautiful work of Cornil & Babes on "Pathological Bacteria." They are called the micrococci of endocarditis—but I have not yet convinced myself of the existence of this microbe, and shall await further investigation.

A section of the lung stained with eosine and hematoxylin affords a most instructive example of the embolic pneumonia so frequently associated with endocardiac inflammation, and which is supposed to be due to the distribution of the micrococci just noticed. The hepatised tissue of the lung when stained with gentian violet showed myriads of the bacilli of putrefaction, whilst none were found in the blood wherever the corpuscules remain uninjured.

No bacilli or micrococci were found either in the liver or kidney, and it may be that those in the lung were the concomitants of *post-mortem* changes.

The sudden fatal attack, in the absence of a more complete and earlier necropsy, is not easy to explain. All the symptoms point to obstruction of the lungs and fulminating septicemia, which is probably a form of profound ptomaine poisoning. If so, the death presents us with startling evidence of the virulence of the ptomaines produced by the putrefactive bacilli, and also of our complete impotence to arrest the fatal effects.

632 Sutter Street.

DISLOCATION OF THE SHOULDER REDUCED BY VIOLENCE.—A UNIQUE CASE.

By G. W. Westlake, M. D., Red Bluff, Cal.

In April, 1884, W. H——, æt. 52, residing at Red Bluff, while hauling wood, fell from his wagon, sustaining a subglenoid dislocation of the right shoulder. It was soon after reduced by a competent surgeon, a pad placed in the axilla and the arm confined to the side. Four days afterward he came to the surgeon's office, and upon examination, the head of the humerus was found in the axilla. He was fully anesthetized, and with the assistance of three other members of the profession, and after strenuous efforts with all the means made and provided in such cases, the dislocation was again reduced and a retaining apparatus applied. The

humerus remained in position thirty-six hours, and again slipped out.

At this time there was so much swelling and tenderness that no attempt was made to reduce it for several days. With rest and evaporating lotions, the swelling subsided, and a third time under an anesthetic the luxation was reduced, and our ingenuity taxed to devise an apparatus to retain it. But our best directed efforts failed, as the head of the humerus was found in the axilla next day. We believed that our failure to retain it in position was attributable to a rupture of the glenoid ligament or a fracture of the inferior portion of the rim of the glenoid cavity. After the third reduction and subsequent failure to retain the head in position, he refused to have anything further done.

Soon after this he removed from Red Bluff, and nothing was seen or heard of him until September, 1877, when he returned, and I examined the shoulder. The head of the humerus could be distinctly felt in the axilla; the muscles of the shoulder and arm were atrophied, and motion was greatly impaired. In November following, his team ran away; he was thrown to the ground, striking heavily upon the crippled shoulder and side of the head. When seen soon after, there was considerable shock, some severe contusions, and strange to relate, I found the head of the humerus restored to the glenoid cavity, after a separation of three years and seven months. With a modified Fox apparatus, for fractured clavicle, and confinement to bed for three weeks, I succeeded in retaining the bone in position, and he has now almost fully recovered the use of the arm.

I would not recommend to the profession, this method of reducing old dislocations of the shoulder.

MEMORANDA.

Adhesive Vulvitis.

During the past year it has been my fortune to observe two cases of this disease. Their seeming rarity warrants a brief report.

Case I.—D——, æt. 7, of healthy parentage and previous good health, had complained of painful urination for some time, when the mother made a local examination to discover if possible the cause of complaint. She was struck by the change in configuration of the parts and brought the child to my office at once. I found the labia adherent their whole length, shutting entirely from view the deeper parts, including the meatus urinarius, and merely permitting anteriorly the introduction of a medium sized grooved director. About this adventitious orifice the tissues were slightly

inflamed and sensitive. The mother informed me that the child complained not only of painful, but also of difficult micturition. Being thwarted in an attempt to tear up the adhesions with the grooved director, I introduced a probe-pointed bistoury and divided the labia as nearly as possible in the line of union. Pain and hemorrhage were very slight. A little antiseptic lint was kept between the labia for a few days and they healed up without reunion.

Case II.—G——, æt. 5, of good personal and family history, plump and rosy, had complained little or none at all. In giving her a local bath, however, the mother was so alarmed by the striking change in the topography of the genitalia that she came at once to the city, through seven miles of mud, in search of medical aid. The adhesions were of the same character as in the former case, but neither so extensive nor so dense. They did not yield readily to the grooved director, however, and were divided as in the previous case.

WALLACE A. BRIGGS, M. D.

Sacramento, Cal.

REPORTS FROM THE HOSPITALS AND ASYLUMS OF THE PACIFIC COAST

CITY AND COUNTY HOSPITAL.

San Francisco, Cal.

UNDER THE CARE OF WM. A. DOUGLASS, M. D., AND JNO. F. MORSE, M. D

[Reported by D. F. RAGAN, M. D.]

Cases in Surgical Practice.

Case I. T. W——, æt. 50, admitted to the Hospital October 7, 1887. The right thigh was fearfully crushed and bruised, the result of the wheel of a heavily laden wagon having passed over the limb. Examination showed all the evidences of a severe contusion; the line of pressure extending from the inner side of the thigh just below the scrotum obliquely outward to the external condyle. There was no fracture; the patient was very much depressed. Ice-bags were applied to the limb. Oct. 13: Pulsation in the dorsalis pedis was absent, probably from thrombus in the femoral artery. A few days later the toes became shrivelled. Hot bottles were applied to the foot, and warm cataplasms to the foot and leg. Whiskey and morphine were administered internally. The leg gradually assumed a mottled and livid appearance, the temperature of the part being perceptibly lowered. The general condition of the patient was markedly depressed. Bullæ appeared, and abscesses developed on the leg and thigh. These were opened and thoroughly cleansed. The toes were now quite dried and the gangrene had extended to the ankle joint. Hot applications and turpentine and oil were employed locally. The line of demarcation formed just above the ankle extending obliquely downwards and inwards. The abscess on the thigh had healed, but that on the leg continued to discharge. Nov. 7: Amputation of the thigh at the upper third was performed under antiseptic precautions. Union by first intention was obtained, and after an uninterrupted recovery the patient was discharged cured on December 20.

Case II. P. W——, æt. 55, was admitted to the Hospital December 16, 1887, suffering from an extensive phlegmon of the right forearm and arm, the result of a wound in the middle of the forearm, received when drilling brass. The limb was red, swollen and painful; the hand was also edematous. The wound was covered by antiseptic gauze, and cataplasms, applied to the forearm for two days; four large incisions were then made in the part and a quantity of yellowish green pus evacuated. The forearm was extensively infiltrated throughout the intermuscular fasciæ as deeply as the interosseous membrane. The cavities were syringed out with carbolic acid solution, five per cent., drainage tubes inserted, the antiseptic gauze and poultices being reapplied. Patient was given a generous diet with iron, quinine and whisky. The cataplasms were continued for two days, the wounds being cleansed daily with a two and a half per cent. carbolic acid solution. The wet antiseptic dressing was continued for ten days, when a dry dressing with iodoform was substituted. The patient left the hospital on January 8, 1888.

Case 3. G. E——, æt. 19. was suffering from a persistent sore on the right leg, the result of an operation which had been successfully performed for necrosis of the tibia. An area of about four and one-fourth inches refused to heal. December 21, 1887, an elliptical piece of skin was removed from the outside of the patient's right thigh, the fascia attached was carefully removed, and nineteen small pieces of the skin placed upon the sore, iodoform was dusted freely over the grafts, a piece of carbolized oil silk was then applied, and over this a layer of absorbent cotton and bandage. The dressing was not disturbed for six days, when it was found that every one of the grafts had taken; two, however, had been displaced, but epithelial cells remained at the site they had occupied. A similar dressing was applied and allowed to remain for five days; it was then found that epithelial cells had been extending and coalescing. The epidermal scales of the transplanted skin were gently washed off, a new dressing applied, and removed on the fifth day. After this, the improvement was rapid, and by January 15, the surface was but slightly reddened, and gradually assuming the appearance of the neighboring skin.

Case 4. A. B——, æt. 21, admitted to the Hospital Dec. 28, 1887. His left hand had been caught between the toothed wheels of a broom machine. The hand was greasy and dirty from the machinery, and the fingers, having engaged in the wheels, were lacerated to the bone on their palmar surfaces. There were also two gashes in the interspaces between the second and third, and third and fourth fingers. The hand was scrubbed with alcohol and soap, the wounds thoroughly cleansed and dressed with a solution of bichloride of mercury, 1:1000, and a palmar splint and bandage applied. In a few days, a carbolic acid solution was substituted. Turpentine and oil was used when the sore was sluggish, and iodoform when the granulations became exuberant, and uninterrupted recovery followed.

Case 5. J. H——, æt. 52, was admitted to the Hospital December 24, 1887, suffering from a deep-seated axillary abscess. He had not slept

for two nights previous; pulse, 110, temperature (evening), 103° F. Patient was etherized, and a large incision made, when fully a half-pint of pus escaped. The abscess extended deeply to the scapula. It was syringed out with a five per cent. solution of carbolic acid, drainage tubes inserted, and an antiseptic dressing applied. He was given iron, quinine and whisky. The cavity was cleansed daily, and the incision kept open for several days by being plugged with lint, saturated with turpentine and oil. In about ten days, another tumor appeared; patient again became feverish. Flaxseed poultices were applied. In a few days the second abscess was opened, the wound cleansed with a five per cent. carbolic acid solution, and a plug of lint, with turpentine and oil, inserted. The general treatment was continued. The second opening quickly healed, the man's condition improved, and he left the Hospital on January 17, 1888.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By Wallace A. Briggs, M. D., Sacramento, Cal.

Alcoholism in Gynecology and Obstetrics.—Dr. Matthews Duncan has endeavored, in a paper on this subject (*Edinburgh Medical Journal*, April, 1888,) to concentrate the existing information on this question, and "to state roundly what he knows and believes." He admits that while material is abundant there is need of further investigation and more exact reasoning. The subject is regarded in its pathological and physiological aspect. It is admitted that disease of the liver and consequent menorrhagia is common in female drunkards, and it is therefore reasonable to suppose that the ovaries can suffer in the same way. To produce this condition the subjects need only be habitual tipplers, not necessarily intemperate in the ordinary sense. He quotes Fournier and Lanceraux in support of his own observation of the frequent occurrence of subacute inflammation of the kidneys, bladder, urethra and vagina in the intemperate. He has observed the tendency to miscarriage or premature labor in the subjects of chronic alcoholism, and mentions Kirk's experience, who has seen cases of fatal rupture, fatal inversion of the uterus and fatal *post-partum* hemorrhage in habitually drunken women. He has only once met with delirium tremens in the puerperal state, but the nervous delirium of Dupytren is far from rare, and several cases descriptive of it are given. Lanceraux says that the material disorders which are the result of alcoholic heredity consist of inflammatory lesions of the nervous centres, which vary according to the time of life when they are produced. He also distinctly connects infantile paralysis and epilepsy with excessive indulgence in alcohol by the progenitors of the child. Dr. Duncan says, "that these observations of deformity and imperfect development, believed to arise from chronic alcoholism, are important. No one can doubt, whatever may be the amount and force of evidence, of their causation. They are mostly concentrated around the

nervous system and this circumstance adds to the strength of the evidence, for observations of the functional disease of the cerebro-spinal system are the most prominent in the treatises on alcoholism, and the evidence of its dependence on this chronic intoxication is fuller and better." Devay remarks that in ancient times the evil influence of inebriety was a dogma received and unanimously propagated by physicians and philosophers. He instances the speech of Diogenes to a stupid child, "thy father was very drunk when thy mother conceived thee." Dumeaux states that in 36 epileptics, of which he could ascertain the history, he had satisfied himself in five cases that they had been conceived when the father was intoxicated. It was found in Norway that the removal of the spirit duty increased insanity 50 per cent., and congenital idiocy by 150 per cent. By far the most striking evidence in this matter is furnished by Lanceraux who instigated a research into the epileptic inmates of the Salpetrière. Of 83 children and adults examined, in 60 cases the parents were found to be alcoholic. In the 60 families, to which these cases belonged, there had been 301 children; of 169, which then survived, only 64 could be considered healthy. Dr. Duncan concludes that "after all has been produced, the want of more cogent evidence is still felt."

Pathology of Abortion in Relation to Treatment.—In a paper read before the Section of Obstetrics of the British Medical Association, Dr. Murdoch Cameron emphasizes the necessity of a careful examination of the discharged clots in every case, as the medical attendant too frequently accepts the patient's description of the discharge. In the first month the embryo may escape detection, but after that it can usually be found surrounded by its membranes, the amnion and chorion with its villi, some of which are found penetrating the decidua reflexa. To avoid the "manufacture of complications," he recommends that the membranes be left intact and encouragement given to complete the expulsion. In the early periods of pregnancy if the membranes are ruptured there need be no hurry; but special attention should be paid to maintaining an antiseptic condition of the passages by frequent injections. If the placenta were retained he had seldom any difficulty in removing it with the finger. He had little faith in the use of instruments, unless when it was protruding from the os. He asked if the use of the blunt or sharp curette with dilatation of the os and dragging down the uterus was reasonable treatment, or whether retention of the placenta was so dangerous or common as to justify these methods? His experience did not justify such measures. With the curette one was working in the dark, and could not fail to wound the healthy membrane and so assist septicemia, and when the amount of injury which an inexperienced person can inflict with a uterine sound was remembered, we should hesitate to recommend the curette. When hemorrhage was present he generally used an antiseptic vaginal tampon with a firm bandage, and found it sufficient. He has not had good results from ergot. If symptoms of septic poisoning are present he uses frequent antiseptic injections. He considers that patience in these cases will do less harm than meddlesome interference. Dr. Lombe Atthill, speaking of these cases in which abortion could not be averted,

said, that if hemorrhage was alarming, plugging was the most certain means of combatting it. It was essential that these plugs should be removed in six hours at the farthest, when the uterus should be washed out with an antiseptic solution. It was seldom necessary to plug. He advocated the treatment by hot water injections, which was perfectly safe and nearly always efficient. He disapproved of the forcible removal of the placenta in the early months of pregnancy until it was proved that it would not be cast off. DR. J. A. BYRNE has found that the hemorrhage accompanying or preceding abortion was, as a rule, not dangerous. He believed in the use of hot water, and also in rapid dilatation if necessary, and the removal of the ovum. In the early months of gestation there was not much trouble in removing the placenta, but after the fourth month it was most intimately attached to the uterus. DR. A. LAWRENCE always plugged the cervix uteri with carbolized lint when hemorrhage was excessive. If the contents could not be cleared out he passed an iodoform bougie into the uterus and plugged with iodoform wool. If in twenty-four hours he could not clean the uterus he repeated the process. MR. LAWSON TAIT was of opinion that anyone who, knowingly, left a piece of placenta after a misscarriage might well lay himself open to a charge of gross carelessness. There was no need of any dilatation or of the use of any sharp curette. His "alligator" ovum forceps would remove anything which had been left without any risk. DR. MURPHY regarded the vaginal tampon in the year 1887 as an anachronism. The place to plug was the cervix, not the vagina, and the material caoutchouc bags (Barnes' or Tarnier's), not antiseptic cotton. He thought Dr. Atthill's advocacy of the expectant treatment was founded on his experience at the Rotounda Hospital, where assistance was always at hand. In private practice this was not safe, and he invariably removed the placenta under chloroform with the fingers. — *British Medical Journal*, March 31, 1888.

Placenta Previa.—DR. ROBERT BARNES says that the conflicting ideas regarding the treatment of this dangerous condition justify him in pointing out the true theory which should govern our procedure. The methods advocated are as follows: *Accouchement forcé*, to which Spiegelberg lends his authority. "Rupture the membranes, draw down a foot and wait during extraction"—Schroeder. Bi-manual version, tamponing. It has been urged that rapid and forcible delivery, while dangerous to the child, is justifiable, as the condition is so perilous that the child need not be considered. Barnes believes that it is no longer permitted, without clear necessity, to sacrifice the child, and he has found that the methods which are most successful in saving the mother are those which give the child the best chance. He bases his theory of placenta previa on a division of the uterus into three regions: The fundal, which is the typical normal attachment of the placenta; the equatorial, which is the seat of lateral attachment, and predisposes to accidental hemorrhage; the lower uterine segment. This, which was first described by the author in 1847, is divided from the equatorial zone by what is variously known as Braun's os internum, Bandl's ring, and Schroeder's contractions-ring, at a point which generally corresponds to the equator of the fetal head and

frequently to the pelvic brim. When the placenta invades this lower segment danger begins, as the part so situated is liable to premature detachment. He believes that the anatomical differences between the middle and inferior zones, which have been described by some authors, are exaggerated. The source of the hemorrhage is the uterine vessels which are torn across by the detachment of the placenta from its walls. The cause of this rupture cannot always be muscular contraction, as it sometimes takes place before any contraction has occurred. From its frequent coincidence with a menstrual period, vascular tension must be considered as a factor. The spongy cellular structure of the placenta favors accumulation of blood; from this distension there may be rupture of vessels and hemorrhage within the structure of the organ. The bulk of the distended placenta becomes greater than its area of attachment and separation takes place, and hemorrhage persists if contraction does not set in. This condition must also be considered a factor. The form of contraction which prevails in the inferior uterine segment is retraction, longitudinal muscular fibres continued from the middle zone, pull up or retract the lower zone, thus dilating the cervix and facilitating expulsion. When the reaction is retarded there is hemorrhage. An obstacle to this retraction is the partial adhesion of the placenta which, when detached, if the vital power is not too low, admits of retraction. Alteration of the structure of the placenta, as fibrinous or fatty degeneration, especially apt to occur in the previal flap, predisposes to self-detachment. The placenta may grow more rapidly than the seat of its attachment, and thus separation may take place. In the progress of many labors there is a stage when flooding is spontaneously arrested; this is due to contraction of the uterus and clot formation in the orifices of the vessels. The arrest of flooding is neither permanent nor secure until the whole of that portion of the placenta adhering to the lower zone is detached. The limit of dangerous attachment corresponds to the line before mentioned; below this the uterine segment must dilate to allow the passage of the child. Above it the uterus does not dilate. When the placenta is detached from this segment there is no physiological reason why further detachment or hemorrhage should take place until after the birth of the child. The portion which remains adherent is commonly sufficient to preserve the life of the child, and it is only in cases of central attachment or premature labor that its life is sacrificed. Adhesion over the os internum impedes the regular dilatation of the part. Injury and inflammation of the uterine structures, particularly of the cervix, are especially likely to ensue upon delivery in placenta previa. The greatest amount of hemorrhage frequently takes place at the commencement of labor, frequently before there is any clear indication of labor. The cervix is always, from its being near the seat of placental attachment, highly vascular, and is frequently very rigid; any attempt to force the hand through it to detach the whole placenta or to deliver, must be made at the risk of injuring the womb. The dragging of the child through the cervix, even when it has not been necessary to introduce the hand into the uterus, is a proceeding of peril to both child and mother. It is desirable to expedite the stage of dilatation, avoiding violence. The

arrest of flooding, and the expansion of the os may be promoted by rupturing the membranes and the use of tents. Since cross presentation or other unfavorable position of the child is apt to impede or destroy the regular contractions of the uterus which are necessary to arrest the flooding, it is mostly desirable to deliver as soon as the condition of the os will permit. In some cases rupture of the membranes and the employment of galvanism (?) may suffice to arrest the hemorrhage at the critical period when the total detachment of the placenta or forcible delivery is dangerous or impracticable, the introduction of the index finger through the os and the forcible separation of the placenta from the dangerous zone, is a safe and practicable operation, and will convert the labor complicated by placenta previa into a normal labor. If the uterus does not assume the vigorous action necessary to effect delivery, it will be necessary to dilate the cervix artificially. This can be readily done by the caoutchouc water dilator ("Barnes' bag"). Sufficient dilatation being obtained delivery may, if necessary, be accelerated by forceps turning or embryotomy, according to the special indications dictated by the condition of the child. In case of turning, he insists strenuously upon the importance of the delivery of the after-coming head by the forceps, if there be any difficulty or delay in the passage of the head under manual traction. He sums up the measures that come into successive use as follows: (1) Rupture of the membranes. (2) Apply a firm binder over the uterus. (3) A plug may be used to gain time, but it must not be trusted—watch closely. (4) Separate all the placenta that adheres within the lower zone, and observe closely. If no hemorrhage, wait awhile. The uterus may do its own work; if not dilate the cervix by the water bags. Again pause and observe. If Nature fails to deliver, resort to the forceps, which gives the best chance to the child, or turn. "In following this order of procedure, we strictly follow the law of physiology. We do not force Nature but obey her."—*British Medical Journal*, March 31, 1888.

SURGERY.

By T. W. Huntington, B. A., M. D., Surgeon Southern Pacific Co's Hospital, Sacramento, Cal.

The Importance of Primary Suture of Divided Nerves.—Under this title Dr. Chas. B. Nancrede urges the importance of primary nerve suture in every case. He believes that the indifference of practitioners to wounds of nerves, or their inclination to "leave them to Nature" has arisen from two causes: First—The fear that suturing might determine tetanus; and, second, the well known fact that nerves divided or even excised with the avowed intention of abrogating their function too commonly reunite. It is now known that a suture *per se* can never originate tetanus while the conditions of a wounded nerve are so different from these purposely divided by the surgeon's knife, that no comparison can be made. If cases in which reproduction of nerve tissue after exsection are examined it will be found that they were removed from a bony canal or an intermuscular space with the minimum of injury to the surrounding tissue. In this way the canal or muscular interspace acted as a

mould and conducting medium for the reparative material. Inextensive wounds these conditions do not obtain. Intermuscular spaces are dislocated, large masses of scar tissue are formed, so that instead of the new nerve tissue being compelled to grow in only one, and that the right direction, it has often an inseparable barrier interposed. How should the sutures be passed, and what should their material be? Fine aseptic catgut passed by means of an ordinary sewing needle is to be preferred, but fine aseptic silk can be used. If the nerve be much lacerated the surfaces may be refreshed, but this is rarely desirable. The needle should be passed from below upward through the proximal end of the nerve at one border, across, and then passed from above downwards near the opposite border, entering the needle from $\frac{1}{8}$ to $\frac{1}{4}$ of an inch from the cut end, according to the size of the nerve. The needle must now be passed from below upward through the distal portion of the nerve at the border corresponding to the last passage of the needle through the proximal end, across, and made to pierce the nerve from above downward, when the suture will be found to correspond to the free end of the thread from the proximal piece of nerve. Gentle traction and one knot will accurately approximate the nerve ends. The strictest asepsis should be secured. If the surgeon gets an uncontaminated wound it is his own fault if he has suppuration.—*Journal American Medical Association*, April 7, 1888.

On Doubtful Fractures of the Neck of the Femur and their Identity with an alleged form of Arthritis Deformans.—It is a fact, well known to all, that certain fractures of the neck of the femur fail to present, during the first week or two, the usual symptoms by which in other cases the diagnosis is so easily made. But these exceptions are so rare, both actually and relatively, that the possibility of their occurrence is likely to be overlooked or dismissed when a case of injury to the hip presents itself and a fracture cannot be clearly made out. The oversight may result seriously to the patient and possibly to the physician * * * Usually the diagnosis becomes clear while the physician is still in attendance, within the first few weeks, but sometimes the recognition of the deformity may be long delayed. With this tardy recognition comes the temptation to seek another explanation of the deformity than that of an overlooked fracture, and the one commonly resorted to is a supposed absorption of the head and neck of the femur excited by the contusion. * * The circumstances under which a doubtful fracture of the neck of the femur presents itself are, in general terms, as follows: The patient has received a blow upon the hip, and this blow, if the patient is elderly, may be slight; if he is young, it was probably violent. He complains of pain at and below the hip, both spontaneous and on motion, and additional pain is excited by pressure in front of or behind the junction of the neck and trochanter. He is able to raise the knee, perhaps even the foot, from the bed, and, exceptionally, may even be able to walk. There is no recognizable shortening, no change in the position of the trochanter, and but slight eversion, if any. Communicated movements of the limb are restricted in all directions, presumably by muscular opposition aroused by pain or the fear of it. Pressure upward against the foot or knee, or inward against the trochanter, gives no pain. In two cases I

have noticed that the trochanter could be grasped and the body forcibly shaken without pain. The symptoms which seem to me specially worthy of attention are the tenderness on deep pressure in front of and behind the outer part of the neck and lack of depressibility at the outer side of Scarpa's space. The latter sign was pointed out a few years ago by Hennequin, and I have found it constant in all well marked cases of fracture, and frequent in doubtful ones, and have learned to look upon it as an important aid to diagnosis. Localized tenderness or pressure in front and behind seems to me to have the same significance and value as in injuries of other bones, that is to be strongly suggestive, but not demonstrative, of fracture. Shortening is so constant a symptom, that when absent in undoubted cases it is sometimes thought necessary to invoke a possible asymmetry as an explanation, and in doubtful cases its absence is often deemed an almost certain proof of the non-existence of fracture. Yet it is in doubtful cases that shortening is expected; cases in which there is a transverse fracture of the narrow part of the neck without separation. Eversion or its absence has the same value and significance as that of shortening. As in other fractures, crepitus and abnormal mobility are frequently absent or unrecognizable. This fact is often used as an argument against the existence of fracture. In a word, shortening, eversion, crepitation and abnormal mobility, and the preservation of function, even to such an extent that the patient can still walk, do not constitute absolute proof of non-existence of fracture of the neck of the femur. Practically, therefore, all such doubtful cases should be treated as though a fracture was certainly present. The next question in this connection is—Can a traumatism of the hip, that is not a fracture of the neck of the femur, give rise to a destructive or absorptive process which will in time give rise to deformity closely resembling that of fracture of the neck? This question is here strictly limited to cases in which the interval between the traumatism and the appearance of the deformity is short, say two or three months. This affection, deforming arthritis of the hip, is of rather infrequent occurrence; is almost restricted to people more than forty years old, and is much more common in men than in women. It begins with stiffness at the hip, and pain resembling sciatica. The thigh becomes gradually shrunken, and there is general disability in the limb. Writers upon the subject speak of a form in which the changes follow more rapidly upon a traumatism, and some speak of the importance of recognizing this variety because of the danger of confounding it with the results of an unrecognized fracture of the neck of the femur, a statement which I believe should be exactly reversed—that is, the commoner error is to suppose an unrecognized fracture to be a case of arthritis deformans. Reëxamination of the evidence advanced in support of the theory that degenerative changes can be produced by a traumatism other than a fracture or rupture of the ligaments, is difficult and unsatisfactory, because of the uncompleteness of the records and our ignorance of the observers, of the care taken on examination, and, possibly, of their preconceived notions. The whole question seems to need and to deserve fresh study.—Dr. Lewis A. Stimson, in the *New York Medical Journal*, April 14, 1888.

On the Surgical Treatment of Large Chronic Ulcers of the Leg.—Dr. A. Jaeschke (*Deutsche med. Woschenschrift*) has treated a large number of chronic ulcers of the leg in the Hamburg General Hospital, by transplantation, according to the method of Thiersch. The results were very favorable. The author does not advocate this method of treatment so much on account of the shortness of time required as from the certainty of the result, and the guarantee against recurrence which it assures. He is convinced that this method is such an improvement that the former ultimate refuge in these ulcers, of amputation, is no longer permissible. The transplantation is carried out as directed by Thiersch. The granulating wound is prepared by scraping off the granulations down to the healthy tissues. Fine strips of skin 20 cm. long are cut with a sharp razor from the arm or thigh, and after arresting the hemorrhage from the granulating surface they are applied with care to the wound surface, under antiseptic precautions. Before the operation the author considered it necessary to prepare the wound and surrounding parts by removing with knife or thermo-cautery necrotic tissue, protruding bone, undermined and cicatricial borders, and the whole base of the ulcer down to healthy tissues. The transplantations were generally deferred until the wound had become covered with healthy granulations. The dressing, the first layer of which consisted of protective gauze, was retained as a rule for six days. Later, ointments were used. When the skin grafts were firm, massage was applied. In the discussion Lauenstein remarked that in daily practice ulcers of the leg under treatment with moist bandages of carbolic acid or lead lotion were usually healed. In gangrenous ulcers, dry bandaging with oxide of zinc and prepared talc was of service. Before the applications, the ulcer and its surroundings should be thoroughly disinfected. Instead of the rubber stockings usually ordered after healing, he advised leather stockings as much better.—*Schmidt's Jahrbücher.*

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By Wm. Ellery Briggs, M. D., Sacramento, Cal.

The Use of Creolin in Ophthalmology.—In the *Centralblatt f. practische Augenheilkunde* for March, 1888, Dr. O. Purtscher relates his experience with this new drug in the treatment of eye diseases. The preparation has the appearance and odor of the tar products, and is derived from dry distillation of the best English coal. It was first described by Dr. Kortüm, and his experiments with it in surgery were encouraging. Creolin is readily dissolved, or more properly, easily mixed with water, as they produce, when mixed, a milk-white solution. Solutions a day old changed to a yellowish-brown color. He only used fresh mixtures, and found one per cent. of sufficient strength. Three or four drops of this mixture introduced into the conjunctival sac of a healthy eye produced momentary sharp burning, contraction of the lids and secretion of tears which may last three or four minutes. The remedy was tested in diseases of the lids, the lachrymal passage and the anterior part of the eye. (1) In simple conjunctivitis it was followed with good results, and especially in

those forms which tend to produce corneal complications. (2) In phlyctenular conjunctivitis, especially cases complicated with intense photophobia, it acted most satisfactorily. He thought that creolin combined with cocaine relieved blepharospasms in scrofulous troubles much more rapidly than cocaine alone. (3) In papillary forms of trachoma the results were very good. He had never seen so rapid disappearance of the follicles under caustic treatment as under the influence of creolin. Also in old and neglected trachoma with extensive cicatricial formation and atrophy of conjunctiva he had observed favorable results, even upon the pannus of the cornea. The vision was rapidly improved. (4) In blenorrhea of the larchrymal passages in many cases, but not all, the secretion was rapidly diminished. (5) In ulcers of the cornea the action of the remedy was surprising in the results. The ulcers took on healthy action more rapidly than under any other treatment than that with the actual cautery. In ulcers complicated with hypopyon the treatment was well borne and the pus in the anterior chamber disappeared quickly. (6) The remedy also worked with good effect upon parenchymatous keratitis. The corneal opacities disappear with surprising rapidity with the clearing of the corneal tissue. In creolin we have an active antiseptic agent which seems more suitable to certain diseases, where the irritating qualities of sublimate solution are objectionable, than that germicide; as for instance, in hypopyon. The author does not believe that creolin will be a panacea, but from his experience, he thinks it worthy of trial. As an antiseptic, it has the advantage of not being poisonous.

Iodide of Silver in the Nascent State in the Treatment of Conjunctival Catarrh.—Dr. Grasselli says (*Recueil d'Ophthalmologie*): Iodide of silver is efficacious in acute, subacute and chronic conjunctivitis, as well as in trachoma and its resulting pannus.

The formula for its preparation is as follows:

℞—Argent. Nitrat.,	3 gm.	56 cg.	
Aq. Destil.,	3	50	
Glycerini,	6	50	M

To be put into a black bottle.

℞—Potassi Iodidi,	3 gm.	32 cg.	
Aq. Destil.,	3	60	
Glycerini,	6	50	M

Put into a white bottle.

Two drops from the black bottle and three drops from the white, are mixed in a watch crystal, and applied to the everted lids with a brush.—*L'Union Médical.*

Death from Meaingitis, the Result of Panophthalmitis following Cataract Extraction.—Dr. David Webster reports (*Archives of Ophthalmology*) a case of cataract extraction, followed by death of the patient, under the care of Dr. Agnew. The right eye being blind from old injury, and glaucomatous, was enucleated. The patient recovered from the operation without any unfavorable symptoms. About a year later he returned to have the cataract, which had been developing for a long time, removed from the left eye. In the absence of Dr. Agnew, Dr. Webster per-

formed extraction. A drop of eserine solution was instilled into the eye an hour, and a drop of a four per cent. cocaine solution twenty, ten and two minutes before operating. The eye was washed with a 1:25000 bichloride solution before and at intervals during the operation. The extraction was done through an upward section without iridectomy and without accident or loss of vitreous. Two days later the patient was found to have removed bandages and compress and did the same twice the night following. The lids were not red or swollen, but the patient was delirious. Iced cloths, leeches and twenty grains of calomel were prescribed on the fourth day. On the eighth day a condition of panophthalmitis was developed. The eye was sprayed with bichloride solution 1:5000. The patient's condition gradually became worse. Fourteen days after operation, the temperature was 99.4, and in sixteen days rose to 100.5. On the twelfth day he passed urine unconsciously and vomited. He became comatose eighteen days from time of operation, and died two days later. It is seen from the result of this case that cataract extraction is not free from danger even to the life of the patient, but such unfortunate results are so extremely rare that we scarcely need to consider them in making a prognosis. The only unfavorable results which occur, frequently enough to be seriously considered in cataract extraction, are atrophy of the globe, sympathetic ophthalmitis and various inflammatory complications which may leave the eye blind.

Orbital Hematoma.—M. PANAS reports the case of a child, aged four years, of general good health and good family history, with left exophthalmos. The lids were swollen, but without change in the color of the skin. The pupil was dilated. The media of the eye were transparent, vision lost, except perception of light. There was evident fluctuation at the border of the orbit. An exploratory puncture indicated that he had to deal with a hematoma, and that the paralysis was due to pressure on the ciliary nerves. It had also caused the exophthalmos. The child had had epistaxis from the left nostril, and at the same time suffered from vomiting, diarrhea and dyspeptic troubles. An incision caused the enlargement to disappear and with it the symptoms of compression and exophthalmos The lachrymal gland which was displaced returned to its normal position. The general condition was treated with the perchloride of iron ; locally, boracic acid was used. The heart, vessels, spleen, liver and lungs presented no marked abnormity. Regarding the pathogenisis of the hematoma, the child had frequent epistaxis and dyspeptic symptoms. It is known that in dyspepsia and in dilatation of the stomach, reflex vaso-paralytic phenomen are often present. He regards this case as one of the effects—an exceptionally rare effect—of the reflex vaso-paralysis.—*Gazette des Hôpitaux.*

DERMATOLOGY AND VENEREAL DISEASES.

By G. L. SIMMONS, JR., M. D., Sacramento, Cal.

Some Questions in Connection with Tardy Hereditary Syphilis.—It is only very recently that the manifestations of late hereditary syphilis had been at all appreciated by the profession. During the last twenty years

much had been accomplished in clearing the matter up; but notwithstanding all the advances that had been made in this direction, many points still remain unelucidated. The question was still asked, "Can hereditary syphilis remain latent for years?" Until recently this was supposed to be a fact in certain exceptional cases of acquired syphilis, but the weight of evidence now showed beyond question that such a thing never occurred in the latter. It was the generally accepted opinion of the present day in cases apparently of this kind that other and minor manifestations of syphilis invariably preceded the so-called tertiary symptoms. There was always an initial lesion although no trace of it might afterwards be found. It was at one time supposed that in all cases of hereditary syphilis the disease showed itself at birth, but the fact was now recognized that many cases occurred in which children were apparently perfectly healthy when born. Statistics showed, however, that in a large proportion of cases syphilitic lesions made their appearance before the end of the third month. Of 249 cases collected by Diday and other authorities, the disease showed itself in 118 by the end of the first month, in 117 between this time and the end of the third month, and 14 later than the third month. Of Diday's own cases, in two the lesions did not appear until after the first year. In instances in which the disease first showed itself at a very late period, the question of acquired syphilis always had to be taken into consideration. The usual history of inherited syphilis, exclusive of those cases in which the child was born syphilitic, was, that after a few weeks, or months, the earlier manifestations of the disease made their appearance, such as a macular eruption, or mucous patches of the mouth and tongue. At this early stage there was usually no eye or ear disease or affection of the bones or joints. These lesions soon passed away and there might be no further syphilitic trouble for years or until the age of puberty was reached, when there might develop keratitis, otitis, diseases of the bones or joints, or deep ulcerations in the buccal or nasal cavities. Unless the early history of the patient could be accurately learned, it might be supposed that these late manifestations constituted the first appearance of the disease. Even the diagnostic sign of Hutchinson's teeth was often absent in these cases, but he believed that in every instance of hereditary syphilis, if the history could be fully ascertained, it would be proved that these later lesions had always been preceded by earlier and lighter manifestations of the disease.—Dr. Fredrick R. Sturgis, in the *Boston Medical and Surgical Journal*, April 19, 1888.

Mercuric Alanine in Syphilis.—Dr. R. DeLucca, assistant in the Clinic of Prof. Ferrari in the University of Coloma, has recently published in *La Riforma Medica*, March 22d and 23d, 1888, his results with alaninate of mercury (mercury and alanine). The alaninate of mercury used was prepared in the following manner: One part of alanine was dissolved in twenty parts distilled water, which was then gradually raised to the boiling point; while the liquid was boiling it was poured over a small quantity of the oxide of mercury (Hg O?) until it was all dissolved. Then the liquid was filtered and evaporated, the residue crystallized and a whitish substance (mercuric alanine) was obtained, which, under the

microscope, showed characteristic needle-shaped crystals, grouped in tufts and crosses. When thus prepared, alaninate of mercury is soluble in three volumes of cold distilled water; this aqueous solution is perfectly colorless, clear; is changed neither by exposure to air nor light, and will keep indefinitely. In practice, DeLucca used the drug in three different solutions—of 4, 8 and 10 mg. to 1 cm. of distilled water (gr. $\frac{1}{16}$, $\frac{1}{8}$ and $\frac{1}{6}$ to 16 m.), both for internal and hypodermatic or intermuscular use. It was used by injection in 20 cases (adults); 19 cured, one improved. The quantity used daily on each patient was from 5 to 10 mg. ($\frac{1}{13}$ to $\frac{1}{6}$ gr.). The average number of days' treatment for each patient was 37.05; average number of injections to each patient, 27.7; average age of patients, 23.2 years. In the case of improvement that was not cured, the patient stopped treatment. All the cases were those of secondary syphilitic lesions. The average quantity of the drug used was 228 mg. (3.5 gr.) to the patient. Suppuration at the site of the injection occurred only three times out of all injections (.53 per cent.). As regards the duration of treatment, then, mercuric alanine has a slight advantage over the bichloride; as to quantity it has a decided advantage, being about as 22.8 to 42. As to the efficacy of the alaninate, in 12 cases (out of the 20) that could be seen to find if any recurrence had taken place, there was only one, in a case of syphilitic papule of the larynx. From this it seems that the alaninate of mercury gives more permanent results than other mercurial preparations. Further, in not a single case in which the drug was used by injection was any stomatitis or other unpleasant effect produced. From a tabulated statement of 20 cases treated by the internal use of the drug, it is seen that for the cure of 10 adults, with secondary syphilis, there was an average of 45.4 days and 641 mg. or (9.9 gr.) of mercuric alaninate per patient. Of 10 children treated, one died on the third day. For the cure of 9 children, average age 7.4 months, with hereditary or acquired syphilis, each required an average of 54.6 days and 159 mg. (2.45 gr.). Of these cases, six were seen in from 8 to 9 months after treatment and there was no recurrence in any one. There was not a single case of stomatitis, and but one of intolerance to the drug on the part of the stomach, which was completely controlled by the administration of cocaine. As regards the internal use of alaninate of mercury, then, it is not to be preferred to the tannate or the phenate in the opinion of DeLucca, but the easy tolerance of the drug and the excellent manner in which it acts on the syphilis of infants makes it an important addition to the list of antisyphilitics. The child that died was only two months old, and in a desperate state when it came under treatment. DeLucca claims that the decidedly calmative action of the drug gives an especially happy effect in infants.—*Journal American Medical Association*, April 21, 1888.

Vesico-Urethral Erethism, Peculiar to Locomotive Engineers.—Dr. John Blake White, in a paper read before the Yorkville Medical Society, February 23, 1888, calls the attention of the profession to a peculiar condition incident to the occupation of a locomotive engineer. He has observed that it almost uniformly affects this class, and that it results in an erethistic state of the sphincter, vesical accelerator and ejaculator

urinæ muscles, with an abnormal sensitiveness to the passage of a sound, and a frequent desire to micturate. In many cases this symptom is so very urgent and persistent that a painful incontinence of urine ensues. The cause is directly traceable to the constant succession of jars and vibrations which the perineum receives, and which are intensified by the seat used by engineers. The treatment consists in providing soft seats, riding sidewise instead of astraddle, as usual; the use of warm sitz baths, medicated with Kreusnack salts and the internal administration of pichi, belladonna or strychnine. All cases are readily amenable to treatment. If stricture coëxist, it must be relieved.—*Journal Cutaneous and Genito-Urinary Diseases*, May, 1888.

MATERIA MEDICA AND THERAPEUTICS.

By Wm. Watt Kerr, M. A., M. B., C. M., Professor of Therapeutics, University of California, San Francisco

Nitro-Glycerine.—The *Post Graduate*, of April, 1888, contains an interesting and instructive article on this subject, by Dr. J. A. Crook. The therapeutic value of the drug depends upon its physiological effects, which consist in an increased frequency and force of the cardiac contractions, together with a lowering of the blood pressure by means of a general dilatation of the arterioles. This change in the blood pressure is without doubt the more important characteristic of the drug, and is the result of vasomotor action increasing the *area vasculosa* by dilating the small vessels and capillaries. This, however, does not account for its beneficial effects in all cases, as it acts equally well in simple cardiac palpitation and intercostal neuralgias, maladies that cannot be explained on the hypothesis of a local anemia. Dr. Crook believes in the diuretic powers of nitro-glycerine. By lowering the blood pressure, and at the same time increasing the force and frequency of the pulse, the capillary circulation is energized, the blood is equally distributed, and in this manner the most marked relief follows its use in angina pectoris, aortic constriction or insufficiency, and in fact in all cardiac lesions associated with cerebral anemia. As the earliest symptoms produced by the administration of nitro-glycerine are the dilatation of the arterioles of the face and head, it is evident that the drug is contraindicated in any conditions accompanied by cerebral congestion. The average dose is from one to five drops of a one per cent. solution.

Strophanthus in Typhoid Fever. — Dr. V. Poulet, in a paper on the use of strophanthus in typhoid fever, ascribes remarkable therapeutic powers to this new remedy. He says that it is an *incomparable antithermic*, or antipyretic, reducing the temperature by two or three degrees, and maintaining the reduction for some time. He further states that it is a valuable hemostatic in the intestinal hemorrhage, which is such a dangerous and alarming complication of this disease.—*Amer. Jour. Med. Sciences*, May, 1888. [In a former issue we referred to the value of this drug in valvular disease, and would again recommend it to our readers, as every day adds additional testimony to its utility in this class of cases. W. W. K.]

Carbolic Acid in Whooping Cough. — In the *British Medical Journal*, April 7, 1888, DR. GREENE reports several cases of whooping cough successfully treated by means of carbolic acid. The drug was given internally in the form of the glyceride of carbolic acid in doses of half a minim to two minims every third hour, according to the age of the patients, who, in Dr. Greene's cases, varied from one to seven years.

Cimicifuga in Rheumatism.— DR. A. E. BRADLEY reports a case of rheumatism which had remained unaffected by nearly all the more common remedies, but immediately yielded to the fluid extract of cimicifuga, given in half drachm doses four times daily. After four days only half this amount was given, and at the end of a week, even this was discontinued, as the patient was practically cured. Severe headache accompanied the use of the drug.—*Medical Register*, April 7, 1888.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, Cooper Medical College, San Francisco, Cal.

Errors in Animal Chemistry, a Cause for the Limited Duration of Life.—PROF. MALY says that the cause of death, when not provoked by disease or accident, cannot invariably be explained by external influences, telluric and atmospheric. There must exist in every organism certain conditions, though at first slight, which will, after a lapse of years, encouraged by trivial causes, be sufficient to produce death. These conditions exist in the digestive apparatus, where substances not only destined for assimilation are produced, but also agents which are detrimental to the organism. The following will demonstrate that the digestive process in man and animals exceeds digestion, by the development of putrefactive products. Absolute digestion only occurs in the stomach. While not digesting itself, it digests the albuminoids without the development of secondary products; by the action of the free acid and pepsine, peptones result, which are in a great measure absorbed in the stomach. Were it not for the fact that a portion of the albumen leaves the stomach in an undigested state, this latter organ would be considered an ideal digestive apparatus. As soon as the remaining albumen has attained the intestinal canal, its digestion is at once arrested by the flow of alkaline bile, and it is only until acted upon by the pancreatic fluid that its digestion is reëstablished. The action of the latter fluid would have been unnecessary if the stomach had completed its work. Pancreatic digestion, owing to the presence of microörganisms in the intestinal tract, develops putrefactive products which are extremely toxic. Aside from the production of innocuous gases (ammonia, carbonic acid, sulphuretted hydrogen and carburetted hydrogen and fatty acids—butyric, acetic and valerianic) there are developed very toxic substances, indol, skatol and the ptomaines. The greater portion of these substances is excreted in the feces; another portion is absorbed, part of which is excreted in the urine. There remains, however, in the organism a small portion, which, by accumulation, conduces to auto-intoxication. The consequence of this chronic intoxication is a physiological death. Many of the putrefactive products, the result of pancreatic digestion, are an-

tagonized by the bile. The bile is a very incomplete digestive fluid, for the work that it performs with reference to the emulsion of fats, can readily be accomplished by the enteric juices. The active constituents of the bile, glycocholic and taurocholic acids, are set free by the action of gastric juice on this fluid, and they possess, particularly the latter, like all aromatic acids, pronounced anti-putrefactive properties. A 0.2 per cent. solution of taurocholic acid is capable of arresting any process of putrefaction. When bile is prevented from entering the intestinal canal of animals, the most marked intestinal putrefaction occurs. The animals rapidly emaciate, and eventually die, although at the *post mortem* examination no structural change in any organ sufficient to cause death will be found. Maly assumes this to be due to chronic putrid intoxication.—*Wiener med. Presse*, March 25, 1888.

Prophylaxis of Tuberculosis.—Dr. Marcus directs attention to the occurrence of tuberculosis in families in whom no hereditary predisposition exists. While working in the pathological institute in Hanover, he has frequently made necropsies on dogs, and in a number of instances established the diagnosis of tuberculosis. Cases of spontaneous tuberculosis in dogs have, in his experience, never been reported. The transmission of parasites from dogs to human beings is a well known fact, and it is equally plausible to assume the propagation of the bacilli of tuberculosis in a like manner. The fact that "dog tuberculosis" can exist for a long while without creating any manifest symptoms, renders hazardous our association with apparently healthy dogs.—*Deutsche med. Wochenschrift*, April 12, 1888.

The Diagnosis of Gastric Ulcer.—Gerhardt considers ulcer of the stomach as a serious affection. Hemorrhage occurs in 29 per cent., perforation in 13 per cent., and narrowing of the pyloric orifice in 10 per cent. of the cases. To establish a diagnosis on any one of the conditions mentioned would be incorrect. The affection is frequent, and as necropsies frequently show, undergoes cure by cicatrization. The absence of a tumor does not exclude the existence of an ulcer. The following forms of tumors frequently occur: (*a*) thickening of the pylorus, especially coëxisting with dilatation of the stomach; (*b*) exudation about circumscribed perforations, which are liable to increase, and thus be confounded with carcinoma; (*c*) chronic inflammation of neighboring organs; (*d*) chronic ulcers with callous borders, which are not always felt, owing to their frequent situation on the lesser curvature. In cases where a tumor is felt, an examination of the contents of the stomach must be made, to arrive at a proper diagnosis. A gastric ulcer can exist from twenty-five to thirty years. Pain is rarely absent, and little value is to be ascribed as a diagnostic means, to pain felt in the region of the xiphoid cartilage. If the pain occurs spontaneously, and is influenced by the ingestion of food and the position of the patient, the diagnosis of ulcer and its situation can be made. Narrowing of the stomach would indicate an ulcer at the cardiac, dilatation one at the pyloric, extremity. Pain on pressure and little hemorrhage would suggest an ulcer on the anterior wall, whereas pain in the back and copious hemorrhage would indicate its presence on the posterior wall.—*Berliner klinische Wochenschrift*, April 9, 1888.

Sacramento Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: JUNE, 1888.

OUR LAST ISSUE.

The congratulations received, and the many gratifying expressions of opinion regarding our last issue demand a recognition. The experiment of providing for the first time a full stenographic report of the proceedings of the State Society was made in the belief that the new feature in the discussions and the knowledge that they would be placed on record, would produce a more careful and deliberate debate. That this opinion was well founded our report has amply proved, and a result has been achieved which the profession on this coast can regard with satisfaction. We believe that it will materially assist the State Society in the direction of higher and better work, and that the profession elsewhere will recognize the progressive spirit of medicine in the far West. The Committee on Publication has decided to incorporate the discussions in the annual volume of transactions, and we are pleased to say that this has been accomplished without expense to the Society.

The effort to publish a first-class journal on this coast is being substantially recognized, and we thank our friends for their kindly appreciation of our labors. The success of a journal largely depends upon its readers, and we solicit their earnest working coöperation. We wish them to take a lively interest in our monthly appearance, to send us reports of cases, carefully considered observations and clinical experiences, to note a local item which will be of general professional interest, to encourage their friends to subscribe, and to patronize our advertisers. We shall continue to improve THE TIMES as the means are placed in our hands, and no effort will be spared to extend its sphere and increase its value.

NOTES.

The Examination of Rags for Microbes.

The possible sources of infection which the shoddy factories of San Francisco present has attracted the attention of the Board of Health of that city, and in order to arrive at a positive conclusion in the matter, Dr. Albert Abrams was requested to submit to microscopical examination specimens of rags obtained from the various factories. The following is the text of his report :

The process pursued in the ultimate disposal of the rags taken from the first factory visited was briefly as follows : The rags were gathered indiscriminately from every available source ; they were baled and brought in this condition to the factory ; then picked and ground, and finally placed in sacks. It will be seen that in this factory no attempt is made to render the rags innocuous.

Experiment I—Consisted in taking from a heap of rags, without discrimination, a single rag, immersing it in sterilized distilled water, and with this water inoculating sterilized potatoes and gelatine culture media. In the course of a few days cultures of the following septic microörganisms were obtained: *bacterium termo* and *bacilus subtilis* (hay bacillus), the latter predominating. Mould fungi were also present, particularly the aspergillus species.

Experiment II—Consisted in inoculating, in a like manner, with material obtained from the ground rags. This resulted in the development of similar microbes, although in less abundance than in the first experiment.

Experiment III—Was made with rags obtained from another factory, and supposed to have been rendered innocuous by a steaming process peculiar to this establishment. Inoculations made in a similar manner with the steamed rags resulted in the development not only of the bacterium termo and bacillus subtilis, but also of the pathogenic microbe of pneumonia, the *pneumonococcus*. Numerous other micrococci were also found.

While the first two experiments only show the development of septic microbes, which are not in a strictly bacteriological sense recognized as pathogenic, it must nevertheless be conceded, after numerous experiments and observations, that septic, as well as pathogenic microörganisms are capable of undergoing morphological and physiological modifications, which can in the body of a living animal create a pathological condition, inducing there, an infectious disease. The third experiment demonstrated that from the steamed rags microbes are developed in equal number to those obtained from rags not subjected to the steaming process. The steaming process at the second establishment visited was of such a

nature as to facilitate rather than retard the growth and propagation of the microörganisms. The thorough germicidal action of superheated steam needs no comment, and it is to be sincerely hoped for that this simple and effective means will be universally adopted for destroying the infectious property of rags.

The Board adopted the report, and in future the rags will be thoroughly disinfected by superheated steam. This action is most commendable and in the direction of that practical sanitation which is so important to a community. We have no doubt that an extended examination would have revealed the presence of other pathogenic organisms, as every physician in general practice is aware of the apathy of the public in connection with sick room sanitation.

Texas Health Journal.

This journal will be a monthly of thirty-two pages, the first issue of which will appear in July. It will be devoted exclusively to the science of health, and is for general circulation. It will be edited by J. R. Briggs, M. D., and published at Dallas, Texas.

The Microscopical Exhibition.

A very useful and highly appreciated feature of the recent meeting of the State Society was the excellent pathological exhibit, to which the names of Dr. J. H. Stallard and Dr. A. Abrams were attached. Over a dozen microscopes were brought into service, and each object was accompanied by a micro-photograph, as well as sphygmographic tracings descriptive of the vascular tension during life. A series of slides illustrative of endoarteritis, and showing the different stages of the disease from partial to complete occlusion, was noticeable. Syphilitic endoarteritis was well shown, the specimen from the brain exhibiting clearly the aneurismal dilatations which this disease is said to induce. Several sections obtained from the case published at page 258 of this issue, were also observed. We trust that this feature will be again presented and in a more extended form at the next meeting, and that a number of slides illustrative of the various neoplasms and of the omnipresent cocci and bacilli will be provided for the information of the non-professional microscopist.

SOCIETY PROCEEDINGS.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting April 10, 1888.

The President, J. D. ARNOLD, M. D., in the Chair.

New Member.—S. E. WINDELL, M. D., was duly elected a member of the Society.

Entertainment of the State Society.—DR. J. H. STALLARD, for the Banquet Committee, reported that it had been decided to recommend that the banquet be dispensed with. The Society adopted the report, which was in accordance with the repeated request of many of the visiting members, as it was believed that the custom was a barrier to the State Society meeting in other parts of the State where the number of practitioners was small.

Mitral Stenosis.—DR. D. W. MONTGOMERY exhibited a heart with very well marked mitral stenosis, in which the auriculo-ventricular orifice was so small as to hardly admit a pencil; nevertheless the patient had taken ether during the performance of a lengthy operation without experiencing any difficulty.

Actinomycosis. — DR. MONTGOMERY also read a communication on actinomycosis. Although ringworm and favus and some other fungi are generally accepted by the profession as the etiological factors of several well known diseases, yet they do not fully answer the scientific requirements; for culture and inoculation experiments have either altogether failed, or have proven unsatisfactory. The profession have accepted these fungi as the causes of the respective diseases attributed to them, because, in the first place, the diseases do not exist without the fungi being present, and secondly, the fungi being killed, the diseases are cured. It is different with the fungus under consideration, for it answers all the scientific requirements; for (1) when the fungus is present in a tissue, it is always surrounded by a new growth of granulation tissue; (2) the extension of the disease is dependent on the extension of the fungus; and (3) the disease may be caused in healthy animals by inoculation with the fungus. The fungus itself consists of a matted central part, or mycelium, which sends out in all directions club-shaped processes, the conidia. This is what gives it its rayed appearance and its name, the ray fungus. The disease usually enters the body by a solution of continuity in the mouth; for example, a carious tooth. It may remain localized in the lower jaw, or its neighborhood, as a circumscribed nodular tumor, which breaks down in its centre, forming an abscess, or it may become generalized. The cases so far observed in California have been in cattle, and we are indebted to the veterinary surgeons, Drs. Bowhill and Fitzgerald, for the present specimen.

Regular Meeting April 24, 1888.

The President, J. D. ARNOLD, M. D., in the Chair.

Antiseptic Measures for the Prevention of Puerperal Fever.— DR. T. J. LE TOURNEAUX read a paper on this subject. He gave a short history of the disease, showing that in the latter part of the last century it raged in epidemic form throughout nearly all the large towns of Europe, and that it was only during the beginning of this century that the pro-

fession really awoke to its danger and the necessity for remedial measures. The advent of the germ theory of disease called into play many antiseptic remedies, with the result that the mortality is now reduced to .5 per cent. In hospitals and in the higher ranks of society it was comparatively easy to take precautions against the disease, but accepting the theory of its germinal origin, we might review the methods best adopted to general practice. Pure atmosphere, clean surroundings and attentive nursing were essential to the prevention of this disease, but it was particularly to the medical treatment that he desired to draw attention. Hot water, permanganate of potash, bichloride of mercury and carbolic acid were the chief germicidal injections that had been suggested, and of them he found carbolic acid to be the best for general use; for, while the bichloride was a more powerful germicide, it was also more irritating and more liable to produce constitutional symptoms. The injection he most frequently used was a 2½ per cent. solution of carbolic acid in warm water; and this same solution was used for cleansing the hands both before and after a digital examination.

Dr. J. H. Stallard said that more than forty-five years ago the general principles of cleanliness were inculcated, and the physician saw that they were carried out by a personal examination both of the rooms and patient; nevertheless, puerperal fever did occur, and under these circumstances, such remedies as turpentine, poultices, bleeding, etc., were tried, and all found to be eminently unsatisfactory when compared with the good results now obtained from the injection of a three per cent. solution of carbolic acid. Many of the hospitals were closed for two or three months every year, notwithstanding the precautions of ordinary cleanliness, but since the introduction of Listerism, the disease is exceptional. He preferred the bichloride for ordinary cases, but when there was much pain and swelling, carbolic acid appeared to be safer.

Dr. H. Gibbons, Jr., said that there were many points in the etiology of puerperal fever that still remained unsettled. The causative relation between this disease and scarlet fever, typhoid fever and erysipelas being generally accepted, although each of these was undoubtedly due to a particular poison. Although germicidal methods of treatment had generally been found to be the most efficient, that fact did not alone prove the germinal origin of the disease. His usual custom, when there were any indications of septic or febrile processes, was to use the bichloride for the first, and carbolic acid for the subsequent, injections, these being made through a Skene's double catheter. He also used Labarraque's solution, which, although objectionable on account of the unpleasant odor, was efficient as a disinfectant, and free from the dangers of constitutional effects.

Dr. W. F. McNutt did not believe puerperal fever to be a specific fever, nor that it was of germinal origin. He did not think that a simple high fever should be regarded as an indication of this disease, but that true puerperal fever should be associated with local inflammation of the uterus or surrounding tissues. Many of the fevers met with in obstetric practice were simply the result of exhaustion and prolonged pain, for during labor the metamorphosis of tissue was very much increased, while during the subsequent period of exhaustion the excretions were diminished, and the effete products retained in the system.

Dr. J. A. Anderson had had rather an unfortunate experience, which led him to believe that there were three or four distinct forms of puerperal fever. He mentioned an instance where the contagion had been carried by a priest from one woman to another, who was a patient of Dr. Anderson, and from this source the doctor communicated the disease to several other women, so that within a few days ten patients were attacked, four of whom died. In one case he never touched the patient,

but simply entered the room and retired again, as the child had been born some time before his arrival. He had seen undoubted evidences of its origin from diphtheria and scarlet fever, which would tend to prove that the disease did not depend upon any one germ, but that there was some contagium or contagia which, when absorbed by a woman in her puerperal state, tends to bring about this inflammation of the uterus. In all his fatal cases the patient had died with symptoms of exhaustion and septicemia. Large doses of opium, by suspending the secretions, appeared to be the best remedy.

THE PRESIDENT mentioned a similar experience in the practice of a friend in the East. He thought that the discussion had indicated that a distinction should be made between septic fever occurring in puerperal women and true puerperal fever; also that vaginal injections were the typical remedy in the former, but useless in the latter.

DR. H. GIBBONS, JR., objected to injecting the uterus as a matter of routine practice, and thought that it should be done only in those cases where there was an offensive discharge, with other evidences of retained clots or excretions. His worst cases of puerperal fever had been in patients where there was absolutely not any vaginal discharge, and there were two cases that followed the physician from one patient to another. He thought that the poison must be capable of being transmitted in emanations from the body and lungs of persons exposed.

DR. D. W. MONTGOMERY called attention to the adaptability of the uterine tissues for the cultivation of bacteria. A. napthol is now one of the best of modern germicides, as it destroys bacteria in a solution of 1:10,000.

DR. C. E. FARNUM said that in studying the disease he had started out with the idea that the fever might be due either to retained septic material in the uterus, or to absorption of microbes through the lymphatics. His practice was to observe simple cleanliness by means of pure water, giving attention to the complete removal of secundines, and he never had experienced any trouble, although daily engaged in the dissecting room. In one case the discharge became foul, but after the removal of a small piece of membrane by means of the dull curette, and thorough irrigation with water, the unfavorable symptoms at once disappeared. He arrived at the conclusion that the great value of water and antiseptic injections lay in removing decomposition and hastening the healing process so that there was no proper soil for the development of microbes, rather than any power they might possess of destroying these microbes after they had been formed.

Gouty Albuminuria with Sarcinæ in the Urine.— DR. J. H. STALLARD reported a case of gouty albuminuria, in which he had found sarcinæ in the urine.

SPECIAL CORRESPONDENCE.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Resection of the Ascending Colon and Cecum for Carcinoma.— An Error in Diagnosis—A Displaced Spleen Taken for a Movable Kidney.—Acute Phlegmonous Pharyngitis.—Nervous Disturbances in Disease of the Genital Organs in Women.

At a recent meeting of the Imperial Royal Society of Physicians of Vienna, Prof. Hofmokl reported an interesting case of resection of the ascending colon and the cecum for carcinoma. The patient, a woman

29 years old, had remarked, two years previously, the presence of a tumor in the right hypochondriac region, which had been taken for a movable kidney, for which reason she was directed to wear a *pelatte* for a long time. Owing to severe pains in that region, she was admitted into the hospital. She was greatly emaciated; the abdomen was not distended, but a movable tumor, the size of a man's fist, could be felt beneath the ribs; the swelling extended as far as the hypochondriac region. The great mobility of the tumor and the absence of symptoms of obstruction, rendered the diagnosis very difficult. Irrigation of the intestines with water did not reveal any new symptom; the signs obtained on palpation and percussion being unchanged. On November 14, 1887, the patient was put under the influence of chloroform, and an operation lasting three hours was performed. An incision, 20 cm. in length, was made on the right side of the abdomen, beginning near the arch of the ribs and reaching as far as Poupart's ligament. After the abdominal parietes and the peritoneum had been divided, the tumor, which was covered by the large epiploon, became visible. It was a neoplasm, the size of a man's fist, deriving its origin from the colon. The lower part of the cecum and the vermiform process were intact. The great mobility of the tumor was due to the presence of a broad and proportionately long mesocolon, as well as to numerous adhesions. The mesocolon and the false membranes which covered the tumor were ligatured with silk and severed with the actual cautery; the tumor was lifted out and excised. The adjoining parts of the ascending colon and a part of the ileum were also resected. The escape of fecal matter from the resected ends of the intestine was prevented by ligaturing with slips of iodoform gauze, which were applied at a distance from the part resected. As the jejunum was somewhat distended, and the ascending colon slightly contracted, the extremities of the resected intestine could in this case be directly united to each other, and this was done by a three-fold silk suture. No severe hemorrhage supervened, and drainage tubes were not employed. Sublimate in the proportion of 1:1000, in combination with a half per cent. solution of tartaric acid, was used during the operation, as well as for the dressing. The subsequent course of the case was almost apyretic. During the first days only, there was an elevation of the temperature to 38.3° C.; afterwards it was normal, not exceeding 37.7° C. No vomiting occurred, and no intoxication with the sublimate. The bowels acted well on the fourth day after the operation, and on the twelfth day all the abdominal sutures were removed. For preventing decomposition in the intestine 1½ gm. of the salicylate of sodium (divided in ten doses) were administered three or four times a day. On the third day after the use of this drug, the fetid odor of the fecal matter had disappeared. On the eighteenth day after the operation a small suture abscess developed in the abdominal wall. The wound was opened, drainage tubes introduced, and the cavity of the abscess irrigated with a five per cent. solution of carbolic acid; healing soon followed. Six weeks from the date of the operation all dressings were removed, and two weeks later the patient was dismissed from the hospital. The microscopical examination of the resected part of the intestine, which had been made by Prof. Weichselbaum of this city, showed that it was an adeno-carcinoma.

Prof. v. Dittel recently reported to the same Society the rare case of a movable spleen with torsion of the gastro-splenic omentum, which was the cause of an error in diagnosis. A woman, 24 years old, was taken sick in September, 1885, with symptoms of cystitis; in September, 1884, she passed bloody urine, which symptom persisted. At that time she also remarked the presence of a tumor above Poupart's ligament, on the right side. The patient gradually emaciated, and on February 9, 1888, she was admitted into the clinic of Prof. v. Dittel. She was very anemic, but the internal organs were found to be normal. The examination of

the abdomen revealed the presence of a tumor in the right iliac region, somewhat larger than a man's fist, but which was not painful to the touch. The urine was bloody and loaded with albumin. Examination of the bladder, by means of the sound, did not cause pain, and the sound could be freely introduced. The question as to whether the blood in the urine was from the bladder or the kidneys could not be determined with certainty, owing to the absence of positive symptoms; the fact, however, that the tumor corresponded in its form to that of a kidney, led Prof. v. Dittel to assume that he had to deal with a misplaced kidney, from which the blood in the urine had been derived, owing to torsion of the renal pedicle. Laparotomy was performed, and the tumor was laid bare. After the detachment of that part of the epiploon which covered the tumor, it became evident from the red color of the capsule of the swelling, that it was not a kidney. Meanwhile, the patient was seized with severe syncope, which proved fatal, in spite of all possible attempts to revive her. The operation had lasted three-quarters of an hour, and not more than 10 gm. of chloroform were used for narcosis. Docens Dr. Zemann, Prosector and Assistant to the Chair of Pathological Anatomy, gave an account of the *post-mortem* examination and exhibited the tumor. It had filled the pelvis, and a strong cord, resembling a funis, grew from it to the great curvature of the stomach. No spleen was to be found in the left hypochondriac region. The tumor was the dislocated spleen, which was enlarged about eight times the normal size, and the gastro-splenic omentum showed three complete rotations. The parenchyma of the spleen was normal in color and consistency. The bladder was much reduced in size, and the surrounding cellular tissue was solid and thickened. The diagnosis was chronic cystitis and pyelo-nephritis; amyloid degeneration of the left kidney, and a suppurative destruction of the right one; dislocation of the enlarged spleen into the right side of the pelvis. Prof. v. Dittel remarked that the patient had stated that she had always been healthy until four months before her admission to the hospital, and that she had never had intermittent fever. The obscure history, as well as the fact that movable kidneys were frequently met with, whereas movable spleens were but seldom found, also the fact that the tumor lay in the right side of the pelvis, were the causes of the incorrect diagnosis. Prof. Bamberger reminded the Society of the case of Prof. Albert, in which there was also a tumor of the pelvis, situated above the symphysis and with a sharp margin. He had, then, made a superficial examination, and his diagnosis was not correct. Dr. Pawlik, now Professor of Gynecology at Prague, examined the woman more closely, and found that she had previously suffered from intermittent fever, and that one day, while dancing, she experienced the sensation of a sudden tearing in the left side of the abdomen; he diagnosed a movable spleen. The woman was subsequently operated upon successfully by Prof. Albert. In the case of Prof. v. Dittel, he would probably not have come to a correct diagnosis even on exact examination, owing to the tumor resembling a kidney. Prof. Kundrat said that the term "wandering spleen" was an inconvenient one, as the spleen did not "wander" in such a case, but fell down, and in doing so became twisted. It was generally enlarged owing to preceding intermittent fevers In the case above referred to, it was not sufficiently fixed and hypertrophied after the dislocation. In conclusion, he said, that it was a clinical fact that enlarged spleens usually had a tendency towards the right side, and that dislocated spleens were always situated in the right side of the pelvis. Prof. v. Dittel opposed the statement of Prof. Kundrat that dislocated spleens were always situated on the right side, and said that in the cases recorded by Rokitansky the dislocated spleen was always found in the left side, and that Rokitansky had declared that this position was characteristic of movable spleens.

Dr. Zemann exhibited a specimen of a rare affection, viz.: pharyngitis phlegmonosa acuta. Senator, of Berlin, who had recently described it in the *Berliner klinische Wochenschrift*, called it a new disease. In Vienna, however, this affection was well known to the anatomists, as such cases used to be observed each year in the *post-mortem* room of the Vienna General Hospital. The affection was less familiar to clinicians. The characteristic features of the disease were a phlegmonous process of the submucous cellular tissue of the pharynx and larynx, with an acute course. This was also the reason of the fact that the diagnosis was so rarely made in the living subject. The specimen shown to the Society was from a patient who had recently been admitted into the General Hospital for emphysema and dyspnea. The patient died a short time after his admission into the clinic of Dr. Standthartner, and examination of the throat showed the following conditions: edema of the entire mucous membrane of the pharynx, which was also in part ulcerated; edema of the root of the tongue and the glottis, the infiltration reaching as far as the larynx. The disease must be regarded as a primary phlegmonous process of the pharynx or the larynx, but the means of infection were not yet known. The course of the disease was invariably rapid, and the subjects succumbed to parenchymatous degeneration of the heart or narrowing of the air passages. Another case of this disease which had recently been observed by Dr. Zemann, was that of a young girl with cardiac failure. Tracheotomy had to be performed owing to sudden dyspnea, but the patient died after the operation. The *post-mortem* examination revealed the presence of pharyngitis phlegmonosa acuta, which was the cause of the sudden death.

At a recent meeting of the Vienna Medical College, Prof. Rosenthal delivered a lecture on the nervous disturbances which were due to diseases of the female genitals. He had observed 30 cases in which there could be no doubt that the nervous disturbances were due to affections of the sexual apparatus, as explained by Heward, Hegar, Schultze and Freund. The women complained of severe pains in the back and lumbar regions, and the sensibility extended to the parts supplied by the ischiatic and crural nerves. The external sexual organs were often sensitive. The patients complained of sensations of weariness and heaviness in the lower limbs so that they could not walk for any length. Mental depression was often met with in such cases. The gastric disturbances must be divided into three classes. In one series there was sensation of pressure in the cardiac region; vomiting supervened immediately after a meal, and often to such a degree that no food could be kept on the stomach. The matter which was vomited in such cases had an acid reaction, owing to the presence of free hydrochloric and lactic acids. In these cases of hyperacidity the chlorides in the urine were considerably diminished, probably for the reasons that the power of gastric absorption had become impaired. In another class of cases the vomited matter was watery and mixed with mucus. Vomiting chiefly came on in the morning or during the night. Heward, in a monograph published three years ago, described a group of symptoms, consisting of nervous and lancinating pains in the lower extremities, disturbances of function in the bladder and rectum, and summarized all these symptoms with the term of "symptoms of the lumbar medulla;" these symptoms were also sometimes combined with aphonia and gastric disturbances. Engelhardt approved of this term, and stated that slight disorders of the female sexual apparatus were sufficient to produce severe nervous disturbances. Prof. Rosenthal was opposed to the term, as such a term might lead the physician to suppose that one had to deal with an organic disease of the lumbar region of the spinal cord, which would, of course, render the prognosis unfavorable. In his opinion, the neuralgias of the roots of the nerves played a chief part in these cases, and to explain these conditions, he quoted some in-

teresting anatomical facts. He mentioned two "ganglia," one of which was embedded in the connective tissues near the neck of the uterus; the other was the "ganglion pelvicum inferius," which was situated in the pelvis. The last mentioned ganglion was closely studied by Prof. Voigt, and it was proved that it contained nerve-fibres of the sympathetic and spinal system, which, through various anastomoses, supplied the genito-urinary system as well as the plexus of the crural nerves. In the cases referred to, there was usually a pelvo-peritonitis which caused a thickening of the cellular tissue; the ganglia, together with their nerves, were thus compressed, and by the continual pressure underwent an atrophic process; the distant nervous disturbances were, in conformity with this view, dependent upon the nervous anastomoses with the pelvic nerve plexus. The pains in the back and the limbs could thus be explained by the supposition of neuralgias of the nerve roots, which pains sometimes extended over the upper extremities. In some cases he had observed the distinct symptoms met with in neuritis. In the case of a puerperal woman, metritis and perimetritis set in; there was anteversion and fixation of the uterus on the left side, and the left ovary was greatly enlarged. Severe neuralgia supervened on the left side; the left limbs became atrophied; the muscles were paralyzed, and there were also considerable anesthesia present on that side. The diagnosis of neuritis was made, and after treatment with the electric current and massage for several months, the patient was relieved from pain. In a second case, severe pains in the limbs occurred after a chill; examination revealed the presence of acute metritis and the symptoms of a chronic metritis with retroflexion and fixation of the uterus; the faradic irritability much impaired, and there was, moreover, slight anesthesia. Prof. Rosenthal went on to say that very threatening symptoms might supervene in such cases. In one case under his observation, vomiting was so severe that the patient lost flesh to a considerable extent, and there were also attacks of heart failure. Upon the spontaneous discharge of the parametritic exudation, relief to the whole condition rapidly ensued. The treatment of these conditions had to be in part a local and in part a general one. He could not say, from his own experience, whether the "massage" of the uterus, which had been recently recommended, was attended with success; at any rate, such treatment was not always harmless, as he knew of a case in which acute metritis supervened upon the third "*séance.*"

AMERICAN MEDICAL ASSOCIATION.

[SPECIAL CORRESPONDENCE FROM CINCINNATI.]

The Representation.—Medical Editors' Meeting.—The President's Address.—Proposed Regulation of Medical Schools.—Why there was no Banquet.—Diagnosis of Intestinal Perforation.—Infant Feeding. Dr. Comegy's Address.—The General Addresses.—Addresses for 1889.—Changes in the Constitution: Members by Application; Signing the Constitution Annually; Recording Section to be Attended; Abolition of Publication Committee.—Charlatan Advertisements in Religious Papers.—Proposed Changes in Autonomy of Sections; Section Officers for 1889.—The Library of the Association.—Social Features of the Meeting.

The thirty-ninth annual meeting of the Association will be remembered for a long time by those in attendance, as one of the most pleasant and profitable, socially and scientifically, in the history of the Association.

The profit and pleasure of the meeting were due to the character of the addresses and papers read; to the character of cultured city and citizens of Cincinnati, and, as much as anything else, to the hospitality of the profession of Cincinnati. Of the many physicians of the city, but two refused to lend a hand towards making pleasant the stay of the visitors, and both on account of the still open sinuses of the old International Congress suicidal wounds; though prominent at the meeting were some of the Eastern men that strayed temporarily. They were not only there, but in a good humor, and were cordial in their invitation to the Association to meet in Philadelphia in 1889.

The only thing to be regretted about the meeting was the fact that, as regards States, it was not so representative as could have been wished. Possibly this was due to the fact that the two previous meetings had been held within less than three hundred miles of Cincinnati. But there is no doubt that at these meetings the Association has been very much strengthened in the West and Southwest. Nevertheless, one would think that some not very remote States could and should have sent more men to this meeting. And one can but think that the meetings would be more largely attended and the membership of the Association more rapidly increased if the organization of the Association were changed in some important particulars.

The Association meeting may be said to have begun on Monday night, May 7th, with the meeting of the American Medical Editors' Association, at which a most excellent address was delivered by the President, Dr. Wm. Porter, of the *St. Louis Medical Review*, who referred to the good work done by the medical press of the country towards making the International Medical Congress a success. He made an appeal for still more efficient and close organization of the medical press of the country, and it is not improbable that something will be done soon in the way of organization that will surprise a good many. There was a prolific and in some respects very warm discussion as to the deleterious effects of trade journals on regular medical journals, and the general opinion seemed to be that their effect on medical literature was bad—demoralizing to the profession and depressing on legitimate journalism.

The address of the President of the Association, Dr. A. Y. P. Garnett, of Washington, contained two propositions that met with enthusiastic favor, and if acted upon they may cause future trouble for some of the so-called medical colleges of the country. The propositions are as follows:

"Proposition 1—That a standing committee, to be called a Committee of Legislation, be appointed for each State, Territory and the District of Columbia, to consist of five members of the medical profession in good standing, three of whom shall have no official connection with any medical school or college, whose duty it shall be to carry out as far as possible the following instructions:

"First—That each one of said committee, or a majority thereof, shall attend the sessions of their respective Legislatures, or from time to time, as their duties may require, for the purpose of using all honorable means looking to the reduction of the number of medical schools in the United States, and a consequent diminution in the annual number of medical graduates; that as a practical measure to this end they urge the passage of a law requiring that in the future granting of charters for creating medical schools there shall be a clause in every such charter requiring that all schools or colleges thus created shall demand a full term of four years' study before granting a diploma to any student thereof, and that no student shall be admitted to matriculate who has not passed a satisfactory examination, both oral and written, in the ordinary branches of academic study; and further, that any college failing to show a greater number than fifty matriculates annually for three consecutive years, shall forfeit its charter and be abolished.

"Second—That they use all diligent effort to secure an ordinance creating in each State or Territory where no such Board at present exists, a Board of Medical Examiners, which shall have no connection with any medical school, and which shall be required to examine all applicants for license to practise medicine in their respective States; and that any person who may be detected in practising any branch of the healing art without a license granted by said Board, shall be subject to such penalties as the law may provide.

"That this committee may be authorized by statute to select and nominate to the Governors of the States seven competent and learned members of the medical profession to constitute said Board of Examiners, who shall have the exclusive power to issue licenses to practise the art and science of medicine and surgery.

"That the faculties of the several medical schools within the limits of the United States be urgently requested to call a convention at some central point, for the purpose of consultation and adopting some general and uniform system of medical education more comprehensive and rigid in its requirements, and more in accord with the spirit of the age and the advanced progress of medical science; suggesting a four year's term of study, the requirements of a preliminary education, including some knowledge of the classics.

"That any college or school which shall refuse to enter into such an arrangement as may be decided upon by said convention shall be excluded from all connection with the American Medical Association, and its alumni not recognized as members of the regular profession."

The banquet, with two kinds of tickets, one calling for wine, and one without wine, was decided by the Committee of Arrangements to be utterly impracticable. As one member of the Committee said: "It would have been a kind of goat and sheep affair. Those that had wine would have felt a little badly to see their prohibition friends without anything to drink, while those without wine would glare at the others." One thing is certain: no banquet could have been served for less than three dollars a plate, without wine; but there are very many members of the Association that are not accustomed to paying for banquets, and would think three dollars should buy a magnificent feast; and it is probable that had the banquet taken place, there would have been no end of grumbling.

It would be impossible in this letter to give even a *résumé* of a few of the papers read. It may be said, however, that the paper that excited most interest was one by Dr. Nicholas Senn, the well known surgeon of Milwaukee, on the diagnosis of intestinal perforation, in cases of wound of the abdomen, by inflation of the intestine with hydrogen gas. Necessarily there must be an external wound. In this case, instead of performing laparotomy and pulling out the intestines to make a thorough examination of them, the surgeon injects hydrogen gas *per rectum*, and then holds a lighted match to the abdominal wound. Hydrogen gas, being extremely inflammable, of course ignites at the opening if there be a perforation of the intestine. The practicability of the method was shown by Dr. Senn after he read his paper in the Section on Surgery, by shooting three or four dogs. When one opening has thus been discovered and closed, the gas is again injected, and the test again made—and so on until all the openings have been found and closed, as shown by the failure to obtain ignition at the abdominal opening. It is necessary, or seems so, to have a strong flow of the gas into the intestine, in order to prevent an intra-intestinal explosion, as any one will understand that has ever had a Marsh's test apparatus blown up by his haste to obtain a flame.

One of the most interesting and profitable discussions was held in the Section on Diseases of Children, on "Infant Diet." In his paper on the

subject, Dr. C. W. Earle, of Chicago, drew the following pithy conclusions: First—mothers should be encouraged by every argument possible to nurse their children, and the dangers of too early weaning for trifling causes should be demonstrated to them. Second—if, from causes which we cannot control, and which seem rational and valid, a mother cannot nurse her child, then, in cities at least, a wet-nurse should be procured. Third—a mixed diet is preferable to an artificial one. Fourth—for very young infants, in lieu of mother's or nurse's milk, cream, with barley, rice or oatmeal water, to which milk, sugar and either common salt, phosphate of lime, or lime water in small quantities is added, seem to agree best. Fifth—for the older children cow's milk and the so-called milk foods. It would seem from some recent analysis of cow's milk that if all kinds of fermentation can be prevented, that the task of preparing cow's milk, so that it will agree with infants, will not be as difficult as it has formerly been. It also seems that it is along this line that investigation in the future should be made. We must not only insist that good milk shall be provided, but also that it shall not have in it bacteria. If milk is used let it be thoroughly boiled, and for a long time. If it is diluted with water let it be absolutely pure. If the attempt is made to make it more nutritious by the addition of cream, let it be that which has not already undergone partial decomposition. The sugar added should be pure milk sugar, and if a small amount of wheaten flour is used, this, too, should be thoroughly cooked. Sixth—if artificial foods are used, let the clinical or bedside test decide which shall be selected, and when food is found to agree with a child, let the growth and increased nutrition of that child, or its loss in weight and commencing atrophy be the guide for the substitution of some other food. I cannot designate particular foods for reasons perfectly obvious. Every food has its advocates. Every food has its chemical analysis, which proves without a shadow of a doubt that it is chemically and physiologically the only substitute for mother's milk, and yet every one of them sometimes fail us. It is admitted that this is true of mother's milk in rare cases, but, as a rule, let our advice be in the order I now name: Mother's milk, nurse's milk, mixed diet, cream foods, milk foods, malted foods, farinaceous foods, always pure, free from bacteria, and each preparation, whatever it be, frequently inspected.

No physician in attendance took more interest in the discussion on this subject than did the maker's of the various infants' foods. The Committee on Dietetics, appointed last year, was continued, and instructed to report next year; and on motion of Dr. Sayre, of New York, the Committee of Arrangements for next year was instructed to place dietetics on the programme for the next meeting.

The Sub-committee of Infant-feeding reported that while it had had the subject under consideration only about two months, it was believed that some facts had been elicited that were of sufficient interest to bring before the Association. The leading facts may be stated as follows:

1. In the case of an infant, or a child under ten months of age, deprived of breast milk, the artificial substitute provided should be made to correspond with human milk as closely as possible, both in its chemical constitution and in its physical characters.

2. Fresh, unadulterated cow's milk, when properly prepared, is an acceptable substitute for breast-milk. But since the casein of cow's milk coagulates in a heavy, dense mass, while breast milk curd is light and flocculent, some expedient must be resorted to in order to make the former resemble the latter, so that the digestive powers of the infant shall not be unduly taxed. The casein of cow's milk, according to Dr. Eustace Smith, as a rule, traverses the infant's alimentary canal, and may be found unchanged in the fecal discharges. It is, therefore, a constant source of irritation, and often gives rise to diarrhea and entero-

colitis. One of the most decided advances in dietetics in modern times is the preparation of cow's milk with the aid of digestive agents, as in the method recommended by Frankland. In this method, the casein of a portion of the milk is first peptonised by fresh calf's rennet, and to this is added a portion of fresh milk, after heat has been applied to check the process and prevent complete predigestion; some milk sugar is finally added, and a mixture is thus obtained that closely approximates human milk in its chemical composition. This has been found to serve as an efficient substitute when the mother's milk is of poor quality, inadequate in quantity, or entirely wanting. It will be seen that the special feature of this method is the peptonising of only a part of the casein, with the employment of heat at a certain stage to arrest the process, so that the food shall not be completely digested. The addition of the carbo-hydrate (milk sugar, in this case) is necessary in order that the food shall closely resemble human milk. The use of stale, foul-smelling, partially decomposed digestive ferments for the purpose of preparing cow's milk for infants' food is condemned. The necessary skill and intelligence required to insure uniformity of result for the extemporaneous peptonising of milk is rarely to be found in the household, and where this process is adopted, the experiment often turns out to be unfortunate and injurious to the child.

3. As a rule, raw starch is inadmissible in the diet of young infants, because the digestive powers of the infant are rarely sufficiently active to convert crude starch into a soluble form. The plan advocated by some, of adding starch to the milk in order to break up the curd mechanically, is unphysiological and very objectionable. The products of the complete digestion of starch are glucose and saccharose (maltose), and these, in various forms, have been recommended to be used as additions to the milk, under the name of "Liebig foods." When in excess, these substances cause diarrhea, and when administered alone do not sufficiently nourish the child. J. Lewis Smith speaks favorably of dextrine, which is partially digested starch, as a good substitute for glucose and saccharose in artificial foods. The fact cannot be too strongly insisted upon, and is taught by both clinical experience and physiological investigation, that the food of either infants or adults, except in special emergencies, should never be fully predigested, for fear of permanently weakening or destroying the digestive functions of the stomach.

4. A great part of the large infant mortality in our cities is due to the bad quality of the milk supply, particularly that going to the poorer classes. Vaughan declares that many deaths from so-called cholera infantum, are really caused by milk containing tyrotoxicon. Authorities are almost unanimous upon the point that in large cities, at least during hot weather, all milk for the nursing bottle should be boiled several times a day in order to destroy ferment-germs. It is better, at such time, that the food should be freshly prepared for each feeding. In some cases, owing to the variability in the quality of the milk supply, it may be advisable to resort to condensed or to evaporated milk for a short time; in either case diluting and adding cream, or an equivalent soluble carbohydrate, in order to make an artificial breast-milk. Desiccated, partly peptonized milk, in the form of a milk food, containing partly converted starch (soluble starch, dextrine, and a small portion of lactose) is a convenient and, when well made, a very efficient substitute for the mother's milk.

5. Where the child is a premature birth, or is feeble from other causes, as great care should be observed in preparing its food as in prescribing its medicine. Experience has shown that success in infant feeding is dependent upon the ability to individualize the patient, and to select the proper food for each case. For very delicate infants the mother's milk is often found not only inadequate to properly nourish the child, but also

positively injurious. This is generally admitted where some obvious dyscrasia exists, such as the tuberculous or syphilitic. It is a fact that in such feeble infants artificial mixtures can be made that will agree with the weak digestive functions and satisfactorily nourish the child.

The Sub-committee directs attention to the remote and far-reaching effects of the malnutrition resulting from improper feeding in early life, to be seen in the chronic invalidism or in the premature death of the individual, and to the inevitable physical degeneracy that threatens the race where the principles of infant dietetics are neglected.

Among the interesting features of the meeting should be mentioned the welcoming address of Dr. C. G. Comegys, in which he paid a most glowing tribute to Daniel Drake, and his work on "Diseases of the Ohio Valley," which Dr. Comegys said was literally dug out of the elements of nature. It seemed especially fitting that in front of the Music Hall, in which the meeting was held, are some large elms planted by Drake's own hands. Dr. Comegys was a little hard on civilization, however, and not a little exacting on the profession, when he said that one of the objects of the medical profession was to suppress "the two giant evils of civilization, intemperance and prostitution."

On the three addresses before the Association, by Dr. Roberts Bartholow on General Medicine, Dr. E. M. Moore on Surgery, and Dr. Henry P. Walcott on Public Health, nothing very flattering can be said of the first two. Dr. Bartholow had not finished writing his when he delivered it, and his delivery was such that only those on the front rows of benches could hear what he said—possibly it was very fine, but as an attempt seemed to have been made to mention a great many things relating to the medical profession, to materia medica and to practical medicine, one cannot think, *a priori*, that it was the best that could have been done. Dr. Moore's address was a sketch of the progress of surgery down to the present time. Dr. Walcott's address, in State Medicine, was very able and very long. He pointed out the absolute necessity of coöperation in all matters relating to health; that the individual must be restrained in his liberty to injure his neighbor, the city from contaminating the river that furnishes water to cities lower down, and the State from permitting its causes of disease to be transferred to other States. It is the duty of the General Government to control those causes of disease that can be controlled by no other power. He referred to the cruel neglect by Congress of the National Board of Health, and in conclusion, urged the organization of a central health authority, by which some of the resources of this nation might be used for the public protection of human life.

The addresses of 1889 promise, from the gentlemen appointed to deliver them, something well worth going to hear. Dr. William Pepper will deliver that in General Medicine; Dr. P. S. Conner that in General Surgery, and Dr. W. H. Welch that in State Medicine.

As has been said, there was a delegation from Philadelphia to invite the Association to meet in the city of fraternal affection in 1889. Inasmuch, however, as the Association met there some twelve years ago, while it has not been to New England for more than twenty years, it was decided to go to Newport, R. I., which may be looked upon as a rather neutral ground, convenient to the East, and attractive, if not convenient to the West. Another reason for going to Newport was that the Association wished to have an opportunity to entertain itself, without feeling that it is calling upon the local profession of any particular place to make preparations for it, and this it felt it could do by going to Newport, since the profession there is small in numbers. To look forward to 1890 is a long way, but at that time the Association should go to the Pacific Coast. It needs to build itself up in the far West, and it can scarcely expect that the profession of that part of the country will take the desired interest in

it unless it gives the far Western men an opportunity to see something of it.

The selection of the President for next year seems to have given general satisfaction, and the Association honored itself by placing in that position a man who stood by it, under as powerful pressure as could be brought to bear on any one, during the exciting logomachy over the Congress. As regards the other officers there seemed to be some dissatisfaction among the Southern members because more positions were not filled by men living south of Mason and Dixon's line. But when one looks over the list of those in attendance, and sees that South Carolina sent two delegates, Florida one, North Carolina two, Alabama one or two, Georgia two or three, and Virginia, Mississippi, Louisiana, Arkansas, and Texas about a dozen altogether, it is scarcely a matter of surprise that for once at least the old adage "out of sight, out of mind" came true. Places are given to men that attend meetings of the Association and make themselves useful to it, and that is as it should be. Places were given, however, to Kentucky and Tennessee men, and they are Southern if anything.

Some important changes in the Constitution were brought up at this meeting, and one of the most important the following, offered by Dr. N. S. Davis: An immediate installment into full membership of all applicants for membership, upon payment of the dues. This was passed, and removes that formidable looking barrier that so many seem to have seen when asked to become members by application. A proposed change that goes over to the next meeting is the doing away with the necessity of signing a promise to abide by the constitution and code of ethics at each meeting. It is said that this has been the cause of much dissatisfaction among Eastern members, especially those in Massachusetts. Just how it is proposed to arrange the registration blanks in such cases is not known; possibly the outcome will be that it will be supposed that when a person becomes a member of the Association, he will behave himself as he should without giving an annual promise to that effect.

Another proposed rule in regard to registration, is to have each person when he registers record the name of the Section he will attend and vote for officers in, on his registration blank, since it has been found that some members are in the habit of flying from one Section to another to vote for personal friends for officers.

Dr. William Brodie, President in 1886, offered a resolution to have the Committee of Arrangements exclude exhibitors from all future meetings of the Association, but the resolution was promptly tabled. The reason of the resolution does not appear on its face, for no one can deny that such exhibits as are now given are of educational value. Some complain that members spend more time around the exhibits than they do in the general sessions and in the Section meetings. The best way to prevent this is to make the sessions and meetings more interesting. It may be true, also, that those that spend most of their time in collecting samples and sampling beverages that have a suspicion of an alcoholic taste, would not add much to the general sessions or to the Section meetings by their presence. Perhaps if a resolution had been introduced, asking the Committee of Arrangements, at future meetings, to provide bushel baskets for certain members (in order that their pockets might be spared the overloading with samples), it would have been carried by acclamation.

An important amendment passed, related to abolishing the Committee on Publication and turning their work over to the Board of Trustees, which is to consist of nine members, three of whom are to be elected annually, to serve three years. This is a step in the right direction, for the Publication Committee has been a farce since the Association began to publish *The Journal*.

An amendment that goes over to the next meeting, is for the substitution of a General Standing Committee, to consist of two members from

each State and Territory, elected by the delegates present at each meeting. One member is to be chosen each year to serve two years. This committee is to take the place and assume the functions of the Nominating Committee, but with increased powers. The resolution was bitterly opposed, especially by some of the younger members, on the ground that under such a committee they would have no opportunity to become officers of the Association. But if the appointment of such a committee would shut off some of the persistent electioneering that forms the boring feature of the meetings of the Association, the sooner it is created the better for those that are willing to wait till the office seeks them, instead of their seeking the office.

The State Medical Society of Arkansas sent in some caustic resolutions in regard to charlatan advertisements in religious papers. Attention was called to the fact that the medical profession render, as a rule, gratuitous services to clergymen. The editorial clergy were advised to "put behind you the damnable doctrine that we must do evil that good may come," a caustic reference to their plea that they must take such advertisements in order to live. Equally proper would have been some resolutions in regard to the names of clergymen that one sees in patent medicine almanacs and daily papers, certifying to the celestial virtues of some useless or injurious stuff.

A proposed amendment for next year is in regard to the autonomy of the Sections. It is proposed, in the first place, to create a Section on Pharmacy and Materia Medica, reputable members of State Pharmaceutical societies to be eligible, in the same manner and on the same terms as members of dental societies. It is also proposed to make the following changes: Section on Surgery and Anatomy to Section on Surgery and Gynecology, and create a Section on Anatomy and Physiology. Abolish the Section on Obstetrics and Diseases of Women and Children, and make a Section on Obstetrics and Pediatrics. Change the Section on Dermatology and Syphilography to Section on Dermatology and Genito-Urinary Diseases. Change the Section on Medical Jurisprudence to Section on Mental and Nervous Diseases. Change Section on State Medicine and Medical Jurisprudence; and the Section on Practical Medicine to the Section on Internal Medicine.

The following are the Section officers for 1889; the first name being that of the Chairman, the second that of the Secretary:

Medicine—F. C. Shattuck, Boston; G. A. Fackler, Cincinnati.

Surgery—N. P. Landridge, Cincinnati; W. O. Roberts, Louisville.

Obstetrics—W. H. Wathen, Louisville; A. B. Carpenter, Cleveland.

State Medicine—J. Berrien Lindsley, Nashville; S. T. Armstrong, U. S. Marine Hospital Service, New York.

Ophthalmonogy—Geo. E. Frothingham, Ann Arbor, Mich.; Geo. C. Savage, Nashville.

Diseases of Children—J. A. Larrabee, Louisville; C. J. Jennings, Detroit.

Medical Jurisprudence—W. Kiernan, Chicago; T. C. Evans, Baltimore.

Dermatology—L. Duncan Bulkley, New York; W. T. Corlett, Cleveland.

Oral and Dental Surgery—F. A. Rehwinkel, Chillicothe, Ohio; Eugene S. Talbot, Chicago.

The Librarian of the Association reported that the library has now 7,500 volumes, with 2,850 titles. Hereafter the editor of *The Journal* will be permitted to retain in Chicago all the books and exchanges sent, and it is thought arrangements may be made by which the whole library of the Association may be removed from Washington to Chicago. There is at present no medical library of any consequence in Chicago, and this necessarily places the editorial staff of *The Journal* at a serious disadvantage.

The social features of the meeting were pleasant, including a reception at the Burnet House on Tuesday evening, one at Cincinnati's elegant

Art Museum on Wednesday evening, and a concert in the spacious Music Hall on Thursday evening. Taken all in all it was a pleasant and very profitable meeting.

PUBLIC HEALTH.

By W. R. Cluness, M. A., M. D., Sacramento, Cal.

Mortality.--The deaths registered in 106 town districts of the State during the past month, in a population of 736,550, correspond to an annual rate of 17.09 a thousand, the total mortality having been 1.048. 141 deaths resulted from zymotic diseases, giving an annual rate of 2.29 a thousand. Of these 43 were referred to diphtheria, 15 to measles, 7 to small-pox, 24 to typhoid fever, 9 to remittent fever, 15 to cerebro-spinal fever, 6 to erysipelas, 4 to scarlet fever, and 10 to whooping cough. 313 deaths resulted from diseases of the respiratory organs, giving an annual rate of 5.10 a thousand. Of these 197 are ascribed to consumption, 88 to pneumonia, 10 to congestion of the lungs, and 20 to acute bronchitis. The average annual death rate, from all causes, occurring in the ten largest cities and towns in the State, and representing a population of 551,000, was 17.40. The highest death rate for the month, occurring in cities having a population of 10,000 or more inhabitants, was reported from San Jose, having been 23.20 a thousand; the lowest has been again reported from Stockton, the rate having been 10.40 a thousand.

Diphtheria.—Although sporadic cases of diphtheria are of daily occurrence, in one or other locality throughout the State, from year to year, yet it can scarcely be said to have ever become epidemic in California. Evidences, however, of this form of disease are of frequent occurrence, demonstrating more conclusively, perhaps, than any other evidence at our command that it is a disease which is, at best, fostered (if not caused) by local influences; and that it is, therefore, generally preventable. In the opinion of the writer, every such endemic can be traced directly to some low, damp cellar, in which the putrescent products of vegetable matter have been allowed to accumulate; to a low lot or damp yard of the same description; a filthy and improperly covered cesspool, privy or sewer; an adjoining marsh or other like receptacle for the accumulation of filth. As long, therefore, as property owners and the occupants thereof maintain such insanitary surroundings, they may reasonably expect visitations of diphtheria; for just so long will their health be menaced and rendered susceptible to whatever influence of a deleterious nature may prevail. All such insanitary conditions should be promptly removed wherever and whenever found; and to this end we know of no more effectual method than the establishment in every city and town, be its population ever so limited, of a board of health, and the appointment by them of an efficient, active and fearless health officer. There can be no doubt whatever but that the few dollars thus expended by a community will prove to be the most profitable and judicious expenditure of any that may be incurred, and that, when intelligently and fearlessly utilized, diphtheria, at least, will seldom be chronicled as the cause of death of any of the people.

METEOROLOGY.

By J. W. Robertson, B. A., M. D., Assistant Physician to the State Asylum for Insane, Napa, Cal.

California—Tabular Statement for April, 1888.

Stations.	Temperature.						Rainfall.		Mean Relative Humidity	Weather.			Wind.	Furnished by—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No. of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn.....Cal.	61.4	89.0	42.0	.....	.....	.....	.....	0.80	.....	.....	.....	.....	S.	Southern Pacific Co.
Colfax..... "	60.4	84.0	38.0	.....	.....	.....	.....	0.95	.....	.....	.....	.....	NE.	" " "
Eureka..... "	50.9	68 0	38.6	56.9	46.4	10.5	10	1.05	80.9	6	15	9	N.	Signal Service U.S.A.
Fresno..... "	67.1	97.5	40.9	81.9	50.3	31.6	2	0.22	56.6	23	.....	7	NW.	" " "
Keeler..... "	63.4	85.8	39.0	75.1	51.3	23.8	2	0.12	33.5	15	.....	10	S.	" " "
Los Angeles.... "	61.9	99.0	44.0	74.4	52.0	22.4	3	0.12	75.2	14	8	8	W.	" " "
Monterey..... "	57.5	77.0	47.0	.....	.....	.....	.....	0.23	.....	.....	.....	.....	SE.	Southern Pacific Co.
Napa..... "	57.83	79.0	37.0	69.10	46.52	22.54	1	.47	.....	27	11	1	S.	Sta. Napa Ins. Asylum
Oakland..... "	57.31	82.0	44.0	66.	62.	14.96	1	.10	83.96	20	8	3	SW. W.	J. B. Trembley, M.D.
Paso Robles.... "	62.3	94.0	36.0	... .	.....	.....	.....	0.20	.....	....	.....	.....	S.	Southern Pacific Co.
Red Bluff..... "	67.0	93.1	40.7	80.1	51.7	28.4	2	0.53	53.7	18	12	0	N.	Signal Service U.S.A.
Sacramento. ... "	62.3	89.0	42.7	76.7	49.2	27.5	2	0.10	65.0	13	2	2	SW.	" " "
San Diego..... "	60.8	93.0	47.2	68.1	54.7	13.4	3	0.10	79.8	9	9	12	N. NW.	" " "
San Francisco.. "	56.2	87.7	46.0	65.0	49.8	16.1	2	0.11	73.9	13	13	4	W.	" " "
Santa Barbara.. "	59.9	95.0	43.0	75.0	53.	17.0	3	.16	.....	21	2	7	W.	Hugh D. Vail.
Santa Cruz ... "	59.3	86.0	41.0	.....	.....	.....	.....	0.57	.....	.....	.....	.....	S.	Southern Pacific Co.
Yuma.....A. T.	75.3	101.7	47.0	90.4	57.7	32.7	0	0.00	37.0	25	5	0	W.	Signal Service U.S.A.

REVIEWS AND NOTICES.

THE SURGICAL DISEASES OF THE GENITO-URINARY ORGANS, INCLUDING SYPHILIS. By E. L. Keyes, M. A., M. D., Professor of Genito-Urinary Surgery, Syphilology and Dermatology in Bellevue Hospital Medical College, Consulting Surgeon to the Charity, the Bellevue and the Skin and Cancer Hospitals, etc., etc. New York: D. Appleton & Co.

We have presented to us under the above title a complete revision of this standard work on venereal disease. In his preface, the author, as a reason for placing the new edition before the profession, states that "time and surgical advance have destroyed in great part the value of the original treatise, * * * making it an unsafe guide in certain subjects." And with this idea in view, he has not hesitated to replace much of the old text. This is especially so in the chapters on gonorrhea. Here we find that the abortive treatment is not favorably regarded—that irrigation has largely supplanted the old method of injection, and that the bichloride of mercury is a favorite drug both by injection and irrigation. There is a minutiæ about the descriptions of instruments and of means employed, which makes the chapters on this subject particularly valuable. A noticeable feature of the revision is that cases have been entirely omitted from the text. As an addition to this new volume, Litholapaxy receives due notice. The chapter is very well illustrated, the text complete, and the descriptions of operative procedures clear and concise. The author pithily remarks that "Lithotrity is dead, having disappeared from surgery as its brilliant child and successor, Litholapaxy, established its claims." Syphilis, necessarily in a work of this kind, receives a large share of attention. The treatment varies little from that advocated in the older issues. Regarding hypodermatic medication for syphilis, the author does not think it will ever become popular in private practice. Personally, he has only used it on dispensary patients, and has now abandoned the method entirely. The tonic effect of mercury is noticed at length, and the writer takes occasion to refute several arguments against that view of its action, chief of which is the prize essay of Schlesinger, of Gottingen. The prevalent idea among the laity, and to some extent even in professional ranks, that many severe tertiary lesions are directly attributable to mercury, is well controverted by statistics, showing in how large a proportion of cases severe lesions exist, where no mercury had ever been used. The book throughout is most carefully edited, the printing clear, the illustrations of the newest, and the text so thoroughly revised by a master mind, that the new edition of Van Buren & Keyes is well calculated to fill the position among standard works so long occupied by the original volume. We heartily recommend it to all who desire the most modern ideas upon genito-urinary diseases and syphilis.

BOOKS AND PAMPHLETS RECEIVED.

The Applied Anatomy of the Nervous System. By Ambrose L. Ranney, M. A., M. D., Professor of the Anatomy and Physiology of the Nervous System in the New York Post-Graduate School and Hospital, Professor of Nervous and Mental Diseases in the Medical Department of the University of Vermont, etc., etc. Second edition. Rewritten, enlarged and profusely illustrated, p. p. xxxv—791. New York: D. Appleton & Co. Price, $4.00.

The Modern Treatment of Pleurisy and Pneumonia. By G. M. Garland, M. D., Instructor in Clinical Medicine Harvard Medical School, Physician to outpatients Mass. Gen. Hospital, etc. Physician's Leisure Library Series. Detroit: Geo. S. Davis. Paper, 25 cents; cloth, 50 cents.

The Language of Medicine. A manual giving the origin, etymology, pronunciation and meaning of the technical terms found in medical literature. By F. A. Campbell, M. A., M. D., Professor of Materia Medica and Therapeutics Medical Department of Niagara University. New York: D. Appleton & Co.

The Customary Treatment of the Hair Considered in Relation to the Remarkable Prevalence of Premature Baldness in the United States. St. Louis: Arthur R. Deacon.

The Essentials of Medical Chemistry and Urinalysis. By Sam. E. Woody, M. A., M. D., Professor of Chemistry and Public Hygiene, and Clinical Lecturer on Diseases of Children in the Kentucky School of Medicine. Louisville: John P. Morton & Co. Price, $1 55.

The Infectious Diseases. By Karl Liebermeister, Professor of Clinical Medicine in Tübingen, Germany. Translated by E. P. Hurd, M. D., with notes and appendix. Vols. I and II. Physician's Leisure Library Series. Detroit: Geo. S. Davis. Price, 25 cents; cloth, 50.

Reports and Statistics of the Meteorology of the City of Oakland, California, for the year 1887. By J. B. Trembley, M. D.

An Aseptic Atmosphere; Club Foot; A Rectal Obdurator; Palatoplasty; A series of reprints. By David Prince, M. D. Jacksonville, Ill.

The Pulley Method of Advancing the Rectus, with Indications for its Employment. By A. E. Prince, M. D., Jacksonville, Ill. [Reprinted from the *St. Louis Med. and Surg. Journal*, March, 1888.]

Disarticulation of Right Half of the Lower Jaw for Enchondroma. By W. D. Hamilton, M. D. Columbus, Ohio. [Reprinted from the *New York Medical Journal*, October 8, 1887.]

Papillomatous Cystic Tumor of Ovary, with a Hernia Pouch Developed in the Cicatrix of the Abdominal Wound, from a former Ovariotomy. By L. H. Laidley, M. D., Professor of Gynecology, Beaumont Medical College, etc. [Reprinted from the *Journal of the American Medical Association.*]

REPORTS AND ANALYSES AND NEW INVENTIONS.

Malted Milk.

We have received from the Malted Milk Company, of Racine, Wis., a sample of Malted Milk, which is an infant and invalid food. In appearance it is a greyish-white, coarse powder, without any well-marked odor, and with a pleasant, sweetish taste. It dissolves readily in warm or cold water, forming a milky solution. It is prepared for use by simply adding warm water to the necessary quantity and does not require the addition of milk or further cooking. It contains wheat flour, barley malt, wheat bran, bicarbonate of soda and bicarbonate of potash, and fresh grass-fed cow's milk. Tested with iodine, it shows the absence of starch, and with an acidulated solution of pepsin the caseine forms a fine, flocculent curd. It is perfectly palatable and does not require the addition of any condiment.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At the regular meeting of the Board of Examiners, held April 16th, 1888, the following physicians were granted certificates to practise medicine and surgery in the State:

Ben. Turner Burton, Fresno; M. Dept. Willamette Univ., Or., April 27,'80.
D. D. Hunt, Los Angeles; Univ. of Michigan, Mich., Mar. 29, '71.
Jas. H. Pleasants, West Fall Brook; Mo. M. Coll., Mo., Mar. 13,'73.
Clar. B. Putman, San Diego; Mo. M. Coll., Mo., Mar. 6, '83.
Thos. D. Ross, San Francisco; Detroit Coll. of Med., Mich., Mar. 12, '88.
Grier W. Wheeland, Los Angeles; Rush Med. Coll., Ill., Feb. 16, '75.
Emily L. Yeargain, San Francisco; Med. Dept. Willamette Univ., Or., June 11, '79.

WM. M. LAWLOR, Secretary.

At the regular meeting of the Board of Examiners, held May 4, 1888, the following physicians were granted certificates.

Dan'l B. Amick, Oceanside; M. Dept. Willamette Univ., Or., Apr. 9, '88.
Richard H. Burke, San Francisco; Rush M. Coll., Ill., Feb. 20, '83.
Jane Steele Divine, Los Angeles; Woman's M. Coll. of Penn., Penn., March 17, '87.
Hiram Barber Ehle, San Francisco; Rush M. Coll., Ill., Feb. 23, '88.
Virginius W. Gale, Santa Ana; Univ. of Md., Baltimore, Md., Mar. 1,'73.
Jacob J. Houston, Moore's Station; Univ. of Louisville, Ky., Feb. 28,'59.
Wm. Russell Lewis, San Buenaventura; Rush M. Coll., Ill., Feb. 17,'74.
Carl Lewis Müller, Nevada City; Jefferson M. Coll., Penn., Apr. 4,'68.
John Ridley Nott, San Luis Obispo; Royal Coll. of Phys. and Surgs., Edinburgh, Scotland, July 16, '87.
Chas. Tebbs Pepper, Los Angeles; Jefferson M. Coll., Penn., Mar., '69.
John P. Renshaw, Lakeport; M. Dept. Tulane Univ., La., Mar. 28, '88.
James Sherborn Riggs, Redlands; Coll. of Phys. and Sur., Chicago, Ill., Mar. 13, '83.
Francis Manon Sponogle, Fresno (second certificate); M. Dept. Wooster Univ., Cleveland, Ohio, Feb. 27, '79. and Long Island Hos. Coll., N. Y., June 3, '85, and Bellevue Hos. M. Coll., Mar. 15, '85.
Wm. Chas. Aug. Thiele, Los Angeles; Coll. of Med. of the Univ. of Southern Cal., Apr, 11, '88.
Geo. W. Stephenson, Yountville; Mo. M. Coll., Mo., Mar. 3, '87; Coll. of Phys. and Surg., Keokuk, Ia., Feb. 14, '78.
Geo. W. Stratton, Nicolaus; Missouri M. Coll., Mo., Mar. 6, '88.
George E. Wright, San Diego; Kansas City M. Coll. Mo., Mar. 16, '86.

R. H. PLUMMER, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from April 14th, 1888, to May 15th, 1888.

Capt. Wm. H. Arthur, Assistant Surgeon, ordered from Fort Niagara, N. Y., to Fort Bowie, Arizona. S. O. 86, A. G. O., April 14, 1888.

Assistant Surgeon Leonard Wood, granted one month's leave of absence, with permission to apply for an extension of two months. S. O. 41. Dep't Arizona, April 18, 1888.

Capt. Leonard Y. Loring, Assistant Surgeon, granted leave of absence for three months. S. O. 105, A. G. O., May 7, 1888.

Assistant Surgeon A. F. Steigers, relieved from temporary duty at Benicia Barracks, Cal., to rejoin his proper station, Alcatraz Island, Cal. S. O. No. 25, Division Pacific, May 11, 1888.

Official List of Changes in the Medical Corps, U. S. Navy (Pacific Station), from April 20th, 1888, to May 20, 1888.

Past Assistant Surgeon O. G. Cabell, detached from U. S. S. "Adams" and ordered to his home. May, 12, 1888.

Sacramento Medical Times.

VOL. II. JULY, 1888. No. 7.

A CLINICAL LECTURE,

Delivered at the City and County Hospital, San Francisco.

By J. O HIRSCHFELDER, M. D.,

Professor of Clinical Medicine in the Cooper Medical College.

[Reported by H. BRODECK.]

Disseminated Sclerosis.

Gentlemen: The patient, whom I now present to you, is a German, aged 38 years, single. His parents are still living. About seven months ago he was thrown from a horse in Arizona, from which time he dates the commencement of his trouble. He fell upon his left shoulder and left side of head. The horse then struck him with his foot; after falling, he remained unconscious for five or ten minutes, got up, washed himself, and walked one-half mile to the house. Two hours later he vomited, but has not vomited since. He has had constant headache, since the accident, in the back of his head; he now staggers when he walks, and must look straight ahead, or cannot walk; he sees double; so that since the accident he has had headache, dizziness and double vision. If he attempts to walk with head down, instantly his head goes up; if he is able to keep it down for a moment while walking, he staggers and falls forward. This symptom is called propulsion. In walking he tends to the right, and the gait is irregular. Patient is almost completely deaf in the left ear, which condition followed the accident. There is a marked diminution of sensibility involving the forehead, the entire scalp and back of the neck, so that, as you can see, I thrust a pin into these parts without pain. The sense of temperature is entirely lost in the anesthetic regions, whereas the rest of the body is normal as regards sensibility. The movements of the head are perfectly normal. The eyes are not steady; they oscilate, a symptom termed nystagmus. The nystagmus in this case is rotary and from side to side. Movement of the tongue is perfectly normal; likewise taste and smell. This patient at times has an ecstatic appearance, looks up to the ceiling with an expression of beatitude upon his face, and when asked what he sees, replies "golden stars;" he knows perfectly well, however, that they are only hallucinations.

The thoracic and abdominal organs are normal. There is feebleness of both upper extremities; right side much weaker than left. Tremor in both upper extremities; more marked on right side, and present only when he extends his hands; the more his attention is directed to it, the

more intense does the tremor become. Tremor present in legs; more marked on right side. Left leg is a little stronger than right. Tendon reflex exaggerated on both sides. When he stands with eyes shut, he instantly falls backward and to the right. Patient knows his name, where he lives, but does not know the Lord's prayer, which he probably formerly knew almost as well as his name. He mixes up the various sentences of the Lord's Prayer. There is, however, no disturbance of the articulation. Under the mental excitement to which he has subjected himself the tremor becomes very intense indeed. This is a case of disseminated sclerosis. We have here probably lesions of the brain, spinal cord and peripheral nerves. We have probably a lesion of the cerebellum and of the surface of the brain, lesions of the corpora quadrigemina, and of the anterior and lateral portions of the spinal cord in the cervical region. These are about the only things we know that he has; what other lesions there may be, we cannot determine. You will observe that the paresis in the upper and lower extremities is more marked on the right than upon the left side. If you will stop and think for a moment of the character of the symptoms this man presents, you will not have the slightest hesitancy in forming your diagnosis. We have here a typical case of disseminated sclerosis.

He has not yet a disturbance of speech, such as occurs in a large number of cases, but with that exception, he has all the characteristics: 1. Vertigo, which occurs in a large number of cases, probably in one-half to one-third of all cases with affection of the head. 2. Nystagmus, again characteristic of the cerebral form occurring in about one-half of the cases. 3. Particularly prominent and characteristic, indeed an almost pathognomonic symptom of the disease, is the tremor that shows itself only upon voluntary motion. You observe that the tremor of the head is an active tremor, and not due to vibration caused by the shaking of the rest of the body. The more his attention is directed to the tremor, the more intense it becomes. These are the three most prominent symptoms of disseminated sclerosis, and from these symptoms alone we should be able to make a diagnosis, even if there were no other symptoms present. I am pleased to have been able to show you a case so typical as this:

The patient, whom I now present, has the following history: Three attacks of yellow fever, one of cholera five or six years ago, slight pains in legs and feeling of weakness, cold spells, loss of power in lower extremities, cramp in the last two fingers of the left hand, likewise on the right in the ulnar fingers, less in the right than in the left. He gradually lost strength, until finally he was unable to work, has lancinating pains in the legs and feeling of numbness, dyspnea and dry mouth. He wrinkles the forehead and shows the teeth equally well on both sides. His sensibility is intact, and the fields of vision are normal. He has diminution of hearing, and hears the tick of a watch equally badly on both sides. There is more power in the right hand than in the left, although very little in either. There is an oscillatory tremor present, more marked on the right side than on the left, involving the head likewise. The vibration of the head is an independent movement, and from side to side.

When asked his name the vibrations of the head stop. When his attention is taken from the part, the vibration ceases, but the moment his attention is again directed to it, the vibration comes on. His respiration is now 48 per minute and the pulse 72. There is increase in tendon reflex in the upper extremity. There are contractures of the flexors of the toes and some oscillatory movements of the feet as in the hand. The patient is emaciated, but not in proportion to the weakness present. The patellar tendon reflex is exaggerated, but there is no disturbance in sensibility. When he walks, he keeps his feet separated, with a tendency to fall backwards. There is no atrophy of the muscles, no dizziness, no headaches, no disturbance of speech and no nystagmus. The diagnosis in this case is also disseminated sclerosis.

In the preceding case the prominent cerebral symptoms present were dizziness, nystagmus, peculiar physical disturbances, anesthesia of the forehead and neck, with very decided affection of mind. In this case we have none of these cerebral symptoms. The only ones that can be so construed are dyspnea and loss of memory; other than these we have absolutely no cerebral signs. On the other hand, the spinal symptoms are more marked in this case than in the one presented before. We have decided feebleness of both lower and upper extremities, decided increase of tendon reflex of lower extremity, feeling of numbness of lower extremities, lancinating pains in the foot and tremor of the upper and lower extremities and of the head on motion, increased when the attention is directed to the part. So we have quite a complicated condition of affairs. We have certain things which remind us of lateral sclerosis, as these contractures in the lower extremities, together with the increase of tendon reflex.

We have here two cases of disseminated sclerosis that are to a certain extent types of the cerebral and of the spinal forms, although in both cases we have symptoms belonging to the cerebral and to the spinal as well.

There are three forms of disseminated sclerosis: cerebral, spinal and cerebro-spinal. The most frequent form of these is cerebro-spinal.

We have disturbances of various kinds in these different forms of disseminated sclerosis. In the first place, disturbance of mobility. This is a paresis, and usually occurs in the lower extremities, in one or both, although usually more marked in one than in the other. This paresis is in the beginning slight, so that the patient observes that he becomes more tired than formerly upon the leg. This feebleness gradually increases more and more, and finally involves the upper extremity as well. The feebleness increases, until finally the patient is unable to walk. Hand in hand with this feebleness of the muscles, there is a peculiar tremor upon movement, called the intentional tremor. This intentional tremor, as the name indicates, is not present when the part is at rest. As soon, however, as movement is made, oscillations of the part set in. This tremor of disseminated sclerosis is quite characteristic. It is apt to be confounded, in the first place, with the the tremor of paralysis agitans, or Parkinson's disease, as it is called. In paralysis agitans, however, we observe that the tremor is present only when no movements are at-

tempted; that as soon as the patient exercises his will, the tremor of paralysis agitans diminishes or ceases entirely. The tremor of paralysis agitans is a peculiar one. It is a tremor that simulates intentional movements; for example: the tremor of the hand of paralysis agitans simulates the movement of picking wood. Not so with the tremor of disseminated sclerosis. This is a coarse oscillatory movement, such as I am representing to you now. The tremor of disseminated sclerosis, as you have observed in the two cases presented a short time ago at the clinic in the college, is a tremor that involves the muscles of the head, as well as of the body. Not so in paralysis agitans; there we have no movement of the head, except in very rare and exceptional cases; furthermore, the tremulous movement of the eyeball, that we call nystagmus, is never present in paralysis agitans, but is very frequent in disseminated sclerosis; so you see that from the tremor alone we can distinguish the one disease from the other. In addition to the distinguishing tremor, there are other symptoms present in the one disease that are seldom present in the other.

The movements of chorea are more extensive than of disseminated sclerosis. In chorea, in the first place, the movements occur whether the patient intend to make them or not. There is a constant jerking of the affected part back and forth, so that the disease has been called "folie musculaire." When movement is intended in chorea the part is thrown from the line of direction of the movement. In chorea, if the problem were to touch a part, the hand would be thrown hither and thither before the point desired would be finally reached. In disseminated sclerosis the hand would start out regularly at first, oscillations gradually becoming more and more intense, but the general line of direction would be followed. In tabes dorsalis, the movements are somewhat similar to those of chorea, the part is thrown from its line of direction in a zig-zag menner. The lead, mercurial, alcoholic, opium, tea and coffee tremors are finer than those of disseminated sclerosis. Besides the tremor and paralysis the next disturbance of mobility that occurs is rigid contractures. As the disease progresses the muscles that were affected early in its course gradually become stiffer and stiffer, untll finally complete rigidity of the part ensues.

In the case of our patient here, we have already the beginning of these troubles. You observe that the toes are hyperextended and drawn backwards, and there is a rigidity of the extensors of the legs, so that the leg is quite feeble, comes down with a spring, and if I lift up the toes the leg is stiff in the knee joint. In other words, there is extensorial rigidity in both extremities, so that in this stage if the patient can walk at all it is with his knees tightly pressed against each other, with a gait resembling lateral sclerosis. During this time increase of tendon reflex is a prominent symptom and is always present. In such cases, if the foot be rapidly hyperextended, there is a vibratory movement, spasmodic contraction and relaxation of the muscles. These attacks of spinal epilepsy also come without artificial means being employed to develop the symptoms to which I called your attention. It is not present in this case. Sometimes the legs twitch when perfectly quiet. Under such circum-

stances it is the simplest thing in the world to stop the attack. All that you have to do is to press the toes and the attack ceases. As the trouble progresses more and more the contracture of the flexors gains the upper hand and the legs become drawn up. The foot is flexed upon the leg, the leg on the thigh and the thigh upon the body, so that the heels are pressed into the buttock. Disturbance of sensibility of various kinds occurs. The patient may complain of numbness, cramping pains, lancinating, boring pains, etc., similar to those of tabes dorsalis. Disturbances of sensibility are, however, not the rule. You remember that the patient presented on the last clinic day had insensibility of the scalp, forehead and nape of neck; such cases are not frequent. These are the most important spinal symptoms. I must, however, add to them, trophic disturbances. During the course of this disease there are various trophic disturbances, atrophy of the skin, falling out of hair, increase of volume of hair in certain places, development of herpetic vesicles. Trophic change in the bones and muscles, may also occur. These are the most important of the spinal symptoms.

Among the cerebral symptoms, transient diplopia or double vision, has the same significance as in tabes dorsalis. The nystagmus has been referred to. Ambliopia is observed in matured cases of disseminated sclerosis. The ambliopia hardly ever increases to amaurosis as is the case in tabes dorsalis. If we make an examination of the eye of an individual affected with this, we find no change in the fundus. Where the trouble has become excessive, where the ambliopia has become amaurosis, we may find atrophy of the optic nerve, but usually there is no change in the fundus. The next cerebral symptom is dizziness. It is one of the most frequent symptoms of disseminated sclerosis. In this dizziness the patient feels as if he and the things about him were turning, so that he clutches hold of something to protect himself from falling. These attacks come on even when the patient is perfectly quiet, and are frequently a very characteristic sign of disseminated sclerosis.

The next peculiar lesion of disseminated sclerosis is the disturbance of speech. It so happened that none of the three cases that I have shown you have presented the disturbance, so frequently found in the disease. This lesion is that the speech becomes slow, drawling and scanning, with each individual syllable separated from each other syllable. This disturbance of speech occurs in a large number of cases. As the condition progresses more and more the speech becomes more and more affected, and finally becomes almost unintelligible.

Besides the symptoms described, peculiar attacks occur, both apoplectiform and epileptiform, the latter being most frequent. The patient is suddenly seized with a fit of unconsciousness, falls as if struck by an apoplectic stroke; following this, he remains paralyzed on one part of the body for a longer or shorter time, but finally recovers. This is repeated possibly a number of times. We would be certain that the patient in this condition had been struck with apoplexy and that hemorrhage had occurred in the brain. If, however, we should make an autopsy we should find nothing present to explain the stroke. These cases are apt to be described as pseudoapoplexy. They are differentiated from true apoplexy

by the condition of the temperature. In pseudoapoplexy the temperature always rises. In the cases of true apoplexy the temperature remains unchanged or falls, so that if within twenty-four hours following such an apoplectic stroke you find the temperature 101 to 104° you may be certain that the trouble is not true apoplexy but is pseudoapoplexy. Epileptiform attacks occur with moderate frequency during the course of the disease although not so frequently as apoplectiform attacks. You had the advantage of seeing one patient in such an attack, so it will not be necessary to describe it in detail, for an ocular demonstration must be more vivid than any verbal description.

Disseminated sclerosis may be divided into three stages: (1) Up to the development of rigidity, so that the patient is able to lie in bed. (2) During rigidity up to the period of disturbance of nutrition. (3) Disturbance of nutrition, beginning with the development of bed sores, and finally leading to death.

The prognosis of recovery is absolutely unfavorable. No cases recover. However, the duration of the disease may be very long. It may last for months or years, and during its course various attacks are apt to occur. Spontaneous remissions may take place, so that one is apt to think them due to some remedy resorted to at that time.

Little can be accomplished by treatment. I know no medicine that has the right to be considered of much service in the treatment of disseminated sclerosis. Possibly electricity may have some effect, but I do not think it has much. If you are treating such a case it is your duty to prescribe the various remedies recommended, such as chloride of barium, silver or gold, phosphorous and arsenic; but I do not think they have much effect.

ALCOHOL AS A THERAPEUTIC AGENT.

By W. R. Cluness, M. A., M. D., Sacramento, Cal.

Read before the Sacramento Society for Medical Improvement.

"*Tempora mutantur et nos mutamur in illis.*"—Twenty years ago, this month, it was my gratifying privilege to read a paper before this Society, upon the "Use and Abuse of Alcoholic Liquors in the Treatment of Disease," and although the therapeutic uses of alcohol have been frequently alluded to in our discussions, yet no distinct paper has been read upon it since that date. It has, therefore, occurred to me that inasmuch as alcohol constitutes one of the most important ingredients of our daily prescriptions, and is in itself one of the most potent and useful drugs of the pharmacopeia, an evening might be profitably spent in its consideration, especially in view of the marvellous advances that have taken place in the various departments of our art during the interval. A little reflection, however, has convinced me that fewer changes have occurred in the views entertained upon this

subject than upon many others, and that the twenty years of additional experience which have been vouchsafed to myself and a few others who are here to-night and were then present, have but confirmed many of the opinions then advanced regarding the medicinal uses for which the drug in question can be profitably utilized when intelligently applied. Whatever differences there may be in the opinions entertained are wholly attributable to the advancement in our knowledge of therapeutics, for probably nowhere in the arts and sciences have there been greater achievements than in that which appertains to the actions and uses of drugs, which, indeed, are in many respects already exact. Much that was of doubtful utility twenty years ago has been either wholly discarded as worthless, or firmly established as of unquestionable value. Therapeutical knowledge, coupled with physiological inquiry, are rapidly placing the actions and uses of drugs upon a surer and firmer basis, while the results of pathological investigation have disproved certain previously entertained theories and established certain others, and have elevated the practice of our art to a higher and more certain plane.

Physicians of the present day more than ever endeavor to ascertain the natural history of disease, and having determined this point, their efforts are at once directed to the conservation of the natural forces of the system until that period will have been reached and passed, and whatever remedial agents will have been found by experience to accomplish this purpose the most effectually, is at all times availed of by regular physicians. Medical men have also learned to anticipate certain complications during the progress of disease; they know, too, that death results with much regularity in the same manner in different cases of the same form of disease. Their efforts are therefore directed early in the treatment of each case, to a consideration of the means which should be adopted to enable their patients to outlive the natural history of the attack, and to avert and prevent those complications. They well know, for example, that they cannot cure *fever*; that it is impossible to abort pneumonia or to abbreviate an attack of erysipelas; they do know, however, that each of those diseases manifests a decided tendency to cause death within a given time in the cases which terminate fatally and with wonderful uniformity of manner.

The most important changes which I am enabled to note in the practice of the physicians of to-day and those of twenty years ago, so far as the medical uses of alcohol are concerned, rest upon a more correct knowledge of the etiology of disease, and the patho-

logical changes likely to arise during the progress of those affections in which its therapeutic uses are indicated. For example, it was maintained by some of the members of this Society, at the date referred to, that fever of an active type indicated in reality inflammation somewhere; that alcohol in inflammatory conditions but added fuel to the flame which was consuming the patient; that it increased the force of the heart's action and therefore sent an increased supply of over-heated blood to the already fevered brain, and that consequently it was admissible only in cases of adynamic form. Now, however, this theory has been wholly disproved and ignored, because it is not in conformity with experience and observation, for it is being daily demonstrated that the liberal administration of alcohol will generally reduce both the frequence and force of the heart's action during the severest and most acute forms of fever, and induce a condition of rest and equilibrium of the over-excited brain and nervous system. Consciousness and quiet are thus restored, and delirium, with its attendant terrors and dangers, is averted or removed. The theory, therefore, that the inflammatory process is increased by alcohol, we know by experience to be untenable, the opinions of enthusiasts to the contrary notwithstanding, for one fact is better than a thousand theories. Indeed, the healing process, as well as the process of inflammation, is daily and hourly promoted by the liberal use of alcohol, whether the case be one of traumatic injury or of acute disease. Nay, further, it has been frequently observed that the healing process is sometimes wholly delayed until alcohol in some form has been administered, even after the efficacy of all other available remedies had been exhausted. In such cases it does not concern the attendant whether or not alcohol acts as a food and thereby assists in the nourishment of the tissues or the formation of new material. It does concern him, however, whether or not it acts medicinally, and under what circumstances it tends to maintain life, restore the vital forces to that condition which is required for the establishment of the healing process, and under what conditions it will abbreviate or prevent diseased action. While there may be a wide difference among physicians as to the amount which should be prescribed during the progress of certain diseases for the accomplishment of the desired end, and while it is impossible to lay down any cast-iron rules regarding the quantity which should be administered at one time or another, yet there are few practitioners of medicine or surgery who do not daily prescribe it in considerable amounts with positive benefit to their patients. Its administration, however, in

large quantities should be suspended as soon as the danger line is passed, or as soon as resolution or the reparative process becomes well established, for there is but little doubt that when persevered in for a considerable length of time the appetite becomes impaired; and as it is never possible for the attendant to say just when this condition supervenes, or precisely what quantity may be required to induce it, the exercise of good judgment is often required to determine the question.

In the paper alluded to, some of you will perhaps recollect that what was termed the indiscriminate use of alcohol as a remedial agent was condemned, and that it was specially referred to as a very potent drug for evil as well as for good. While, however, the same language is just as applicable to-day as it was then, yet I believe that too much importance was attached to the word *indiscriminate*, for the double reason that I have not since observed it to be generally administered by intelligent physicians as a routine remedy, and without a full appreciation of its injurious as well as its beneficial effects, and because I believed that the benefits derived from its use far more than counterbalance any injurious consequences resulting from it.

There is always one indication for its use, during which physicians no longer hesitate to administer it, whether the affection be acute or chronic, viz.: failure of the first sound of the heart. In such cases there is no remedy of the pharmacopeia at all comparable with alcohol.

It has also been my habit for many years to administer it during the progress of any disease when the pulse persistently beats 120 times or more in a minute. Nor is the presence of a highly colored, or even what is known as a florid face, indicating a fullness of the cutaneous capillaries, a positive contraindication of its use, for the congestion in such cases is not infrequently due to paralysis of the vaso-motor nerves, and as alcohol undoubtedly stimulates the vaso-motor system, such conditions are usually very readily corrected under its influence.

It may also be recollected that it was maintained twenty years ago that alcohol subdued delirium mainly by its narcotic effects, and, I believe, acquiesced in by several of the members of this Society, It is probable, however, that its beneficial action in such cases is due to its influence primarily upon the nervous system, through which the failing power of the heart is maintained and restored to a more healthful action, and thereby a greater and more regular supply of blood is sent to the brain, restoring intelligence

by rendering it clearer and more lively; or, as Dr. Todd says: "Alcohol subdues delirium by raising the condition of the brain and thus quieting its action." One of the best indications for its use in doubtful cases is its influence upon the pulse, for if this becomes more frequent during its administration, it is good evidence that it is either contraindicated as being administered in excessive quantity; or if the rate of the pulse be diminished and its quality improved, it is very certain that its use should be continued. The same rule holds good regarding its effects upon the temperature. If, therefore, delirium be subdued during and by the use of alcohol, no matter what the exciting cause may be, it is always unquestionable evidence of its usefulness in such cases.

It would be impossible, in a brief paper like this, to enumerate even a majority of the various forms of disease, and conditions of system in which alcohol proves beneficial, even excluding its adaptability for combination with other drugs or for external use. Brief reference to its utility in a few only of those affections in which it is regarded as absolutely indispensable to the safe and speedy restoration to health of the patient must suffice.

In the bronchitis so frequently observed during the declining years of life, it is especially beneficial. In all such cases it is often a subject of surprise and gratification to observe how promptly it increases the force of the flagging heart; how it promotes expectoration and enables the poor, suffering invalid to throw off from the air passages the large quantities of ropy and tenacious mucus which are so liable to accumulate. Its beneficial influence in such cases was probably never more fully exemplified in this city than during the past winter. In the pneumonia also of old people it is especially indicated, and it is remarkable the quantities in which it can be safely and beneficially administered in such cases. I venture to say that if many of our religious enthusiasts, as well as our radical temperance people, could but witness the marvellous changes that are daily brought about by this remedy, as observed by intelligant physicians, much of their bias would be overcome and a more rational temperance advocated.

But it is not alone the aged who are benefitted by the use of alcohol in the affections alluded to, for persons of all ages thus afflicted tolerate it well in all stages, and it is often surprising even to those accustomed to administer it to observe the quantities in which it proves not only not hurtful, but positively beneficial. From a record of 23 cases of pneumonia and capillary bronchitis in children varying from six months to five years, treated during

the past two years, to whom alcohol in some form was administered until convalescence had been fully established, there is not the slightest evidence that it acted in any case other that salutary. In no case did it cause disturbance of the digestive organs, nor were any of the secretions suppressed; on the contrary they were invariably increased—the skin, tongue and mouth generally becoming more moist, the kidneys secreting freely and the expectoration being more copious and less viscid. The same remarks are applicable to all of the cases of pneumonia in adult life (17) which came under my observation during the past two years, with the exception of the fact that sleeplessness, nervousness and delirium were not so universally induced and calmed as in the cases of the children. And, in looking back over the many similar cases which came under my care during the past twenty years, the same general observations are believed to be applicable without any exception, although it must be borne in mind that memory and tradition are treacherous and unreliable.

But while alcohol proves of wonderful benefit in such diseases as have been alluded to, it is in diphtheria that it is more especially and universally indicated in all of its forms and stages than any other affection. Here prostration is an early and constant manifestation, although frequently differing in degree; and in the severer and more malignant cases the system is so often overwhelmed with the effects of the poison that the patient can only be prevented from speedily dying by the prompt and liberal administration of alcohol. In such cases is use is imperatively demanded as the only remedy which offers any hope of maintaining life until the crisis will have passed. Under these circumstances there can be no doubt but it keeps up the powers of endurance far better than any and all known remedies. Does any one believe that its mere stimulating properties will do this? Is it not more reasonable to believe that by the combustion of alcohol in the system heat is generated, which assists in maintaining the vital force? The mere stimulating effects of alcohol will not account for its marvellously conserving powers in malignant cases of diphtheria, otherwise ammonia would be a more prompt and potent remedy, yet we know it to be of no permanent value in such cases.

It should be borne in mind that the effect of stimulation is to increase function in the tissues, and consequently to cause their waste. The views of Dr. Wood upon this subject are doubtless correct when he says that alcohol, besides furnishing some nutriment, acts by promoting digestion and sanguification, thus causing

a more thorough appropriation of food and nutriment, and that the saving thus effected more than counterbalances the waste of tissue implied by increased vital action. While the metamorphosis of tissue goes on with increased activity, alcohol, by its ready assimilation and combustibility, is therefore especially useful in sparing the sacrifice of animal tissue. Under these circumstances the body of the patient is often known to take on fat, because of the fact that the fat which is taken into the system in conjunction with the food remains unburned, the more combustible alcohol furnishing the warmth required, leaving no necessity for the adipose hydrocarbon to be used for that purpose.

In typhoid fever, also, especially during the later stages of the disease, it often proves of inestimable value in tiding the patient over the critical period, for in many of these cases the attendant knows from experience that if he can but maintain life for a few days longer his efforts will surely be crowned with success. The heart, as is evidenced by an irregular, weak and fluttering pulse, has become enfeebled by fatty degeneration, and unless its strength be maintained at this juncture, death is almost certain to take place. When, also, the tongue becomes dry and cracked, and the teeth and lips are covered with sordes, the indications for the administration of alcohol in some form are unmistakable. In such cases the heart becomes increased in force, the pulse becomes fuller, softer and of better strength, and the temperature of the body is lowered. Under these circumstances, indeed when from any cause whatever alcohol has to be administered, its odor is not perceived upon the breath, it is positive evidence that it is being consumed in the system and is having a beneficial effect.

But while alcohol is incomparably superior to all other known remedies in the few special instances alluded to, there can be no doubt but it is frequently administered too freely, and for a length of time wholly unwarranted by the indications for its legitimate use. When thus given, it not infrequently impairs digestion and assimilation, dries up the secretions, especially those of the mouth, and materially delays convalescence. Its administration in all cases should therefore be based upon its therapeutical effects, and should be ranked among the drugs and administered with as much care and judgment as the most potent of them. When thus prescribed, the experience of physicians the world over daily demonstrates its usefulness in innumerable instances in frequently preventing premature death when all other remedial agents had proved futile. And from the *British Medical Journal* of recent date we learn that

the experience of the Temperance Hospital, which had then been in existence twelve years, clearly demonstrates that its non-use, in the medical wards especially, has been attended with unsatisfactory results, particularly in the treatment of pneumonia and typhoid fever. Of those suffering from the former of these diseases, four total abstainers died out of thirteen, one of them dying on the fifty-fourth day from exhaustion. Out of four cases of typhoid fever three died, all having been total abstainers—one of these, also, dying from exhaustion on the eighty-seventh day. We learn from the same source that the average duration in hospital and of convalescence from all causes were unusually prolonged, although a very large percentage of those admitted were afflicted with trivial complaints. From such small numbers, however, deduction of value cannot be made, yet when considered in conjunction with the vast amount of accumulated testimony which could be easily adduced from thousands of reliable sources, it materially assists in demonstrating the beneficial effects of alcohol in the classes of cases alluded to.

Before closing this hastily written and imperfect paper, let me draw your attention to a class of cases in which alcohol is especially useful in comparative health. I allude to those cases which are so often seen during the declining years of life in which the powers of life have begun to decay, and in which the force of the heart appears to be unable to propel the blood to the extremities. In such cases an occasional dose of alcohol will frequently cause the enfeebled heart to force the blood more speedily through the half filled capillaries, and thus not only is the heart enabled to perform its functions more perfectly, but the whole system promptly responds to its beneficial influence.

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MEDICINE AMONG THE MOJAVES.

By James P. Booth, M. D., Surgeon S. F. R. E. A., Needles, Cal.

In verity, there seems to be "nothing new under the sun." Witness the recently published method in surgery of Schede, which is nothing more nor less than an improved—or, perhaps, only a varied fashion of the old homely style of "wrapping up a wound in its own blood." Earth dressings, of which lecturers talk and authors write so learnedly, are a remedial agent of potent force among the savages. The popular and widely advertised massage treatment is an old method, which has prevailed from time immemorial among the North American Indians. Even the stylish

vapor baths, which are indulged in in large cities, are but an improvement on the ancient Indian manner of "sweating out" patients. These facts appear so patent, that the results of an investigation of the use of the methods of treating diseases among the Mojave Indians, instituted for the purpose of ascertaining the extent to which they are used, may prove as convincing, if not as interesting, to the reader, as they were to the writer.

The Mojave Indians are supposed to be located at the Colorado River Indian Agency, in Arizona, 75 miles below the Needles, on the Colorado river; but as many of them, in fact the greater number, have sought and obtained employment on the Atlantic and Pacific Railroad, from Needles to Barstow, while not an inconsiderable number hang around Fort Mojave, they no longer draw government rations, and consequently fail to concentrate as formerly at the Agency. This division has served to locate them at various points along the river, both in Arizona and California, and better enables the encroaching white man to observe their manners and customs.

Physicians, or "medicine men," among the Mojaves, like poets, are born, not made; and no matter whether an unfortunate wills it or not, if his paternal ancestor was a medicine man, a medicine man is he—he must practise the healing art *nolens volens*. Another custom formerly prevailed, which, if adopted by the white man, would prove a most effectual method of thinning out the over-crowded ranks of the profession. A few years back, when a medicine man lost a patient, his own life paid the penalty of his ill-luck. Recently, however, this heroic settlement of medical bills has been tabooed; whether because of the rapidly-growing weakness of the profession or from an advancement in civilization, is not known. At any rate the custom has not prevailed for the past three years or more.

The Vapor Bath is frequently brought into requisition by the copper-colored votary of Æsculapius, and although his improvisations may not be as luxurious or as extended and elegant as are those of his pale-faced brother, still it answers the purpose. The bath-house, or room, is a small apartment, about four feet square, dug out of the sand to the depth of one and a half or two feet, and covered over by bent boughs or lithe willows, over which a blanket is spread, and so arranged as to retain heat and prevent the ingress of atmospheric air. In this is kindled a fire, and after a certain heat is attained the sufferer is thrust in, every opening closed, and the sweating process begins. Frequently the patient

is taken out and plunged suddenly into a cold bath. This is the treatment for colds, catarrhal fevers, etc., and, if the patient has strength sufficient to withstand the shock, is generally successful.

Massage has recently been referred to as a new and effective treatment for constipation, and as it comes from Germany, and carries with it a decidedly foreign aspect, the innovation (?) will doubtless, for a time at least, become quite popular. That it will deserve this popularity, too, cannot be denied, for as a well known English lecturer says, "a man digests with his muscles as well as with his stomach;" and "there is no use in putting nutrients in the patient's stomach unless he is able to assimilate them. If the muscles are run down, and there is no spare nerve energy to make them work, then the places of the nerve current must be supplied by massage and electricity. Massage is a most powerful agent for affecting nutritional changes, and with the increased combustion and greater supply of food, not merely the muscles, but also the heart and every organ of the body, is nourished, and nerve energy is stored up for future use." These analogical and irrefutable facts have doubtless never occurred to the aboriginal members of the healing art among the Mojaves, and yet the empirical practice of curing cramps, colics and constipation by massage is most common among them. True, the style of applying the treatment is unique, but it is massage, nevertheless. When a Mojave medicine man has a patient with the colic, he takes into consideration the gravity of the case, in order to arrive at the *weight* of his prescription, and placing the sufferer prone upon the ground, prescribes tramping. This tramping is done generally by children of different ages, and consequently of different weights. Mounted upon the abdomen of the patient, the juvenile prescription begins its pedestrian work, taking in the upper and lower extremities, and continuing its tramping for hours at a time. Occasionally the tramping is alternated by rubbing, administered by strong adult hands, and accompanied by the doleful whining of some old spirit-charming crone. All stomach and bowel troubles are thus treated.

The Moxa for Rheumatic Pains, Swelling of the Joints, Neuralgias, etc.—Treatment by Moxa is usually resorted to by the medicine men. Instead of the ancient Chinese or Japanese downy cone, however, the Indian doctor uses well seasoned sticks of wood, the ends of which are heated in fire, and held close enough to the skin of the affected joint or muscle to produce cauterization. In graver cases the treatment becomes more akin to actual

cautery, for the sticks, the ends of which are now glowing coals of fire, are applied directly to the skin in various places over the seat of the affection, and held there until the cauterization is carried to the depth of an eighth to a quarter of an inch.

Earth Dressings.—For fullers, or other more recent and scientific earths, the Mojave contents himself with the plain, unadulterated mud, or moist sand, taken from the banks of the Colorado river; and for cuts, wounds and bruises, this is the remedy *par excellence*. It is a good remedy, too, for with the disinfectant properties which it carries, a wound or sore dressed with it seldom, if ever, gives off an odor more offensive than that naturally pertaining to the patient, and healing takes place kindly.

It will thus be seen that the vapor bath, massage, moxa and earth dressings for wounds, though used in a crude manner, are nevertheless remedial agents in every day use among the Mojaves.

While somewhat encroaching upon the domain of the undertaker, it may not be amiss in this connection to mention the fact that the Mojaves are rigid in the enforcement of cremation. Often, during the prevalence of an epidemic among them, the sky during the day, for weeks at a time, will be blackened from the smoke arising from their many funeral pyres; and so anxious are they to carry out this time-honored custom, that they have been known to consign a supposed corpse to the flames before life was actually extinct. A living example of such a mistake is now on daily exhibition at the Needles depot in the person of a maimed and deformed dwarf. This unfortunate, supposed to be dead, was placed upon a collection of wood, to which the torch was applied, but the scorching flames resuscitated him, and he was rescued; not, however, before he was so seriously burned as to render him a cripple for life.

MEMORANDA.

Wine of Ipecacuanha Spray in Throat Cough.

Since reading Dr. Murrell's lecture in the *Medical Register*, on the treatment of coughs due to catarrhal throat and bronchial troubles with wine of ipecacuanha spray, I have used it a number of times with entirely satisfactory results. In my hands, no treatment has ever improved that class of cases so promptly as this simple method of administration with the steam atomizer of a solution of equal parts of wine of ipecacuanha and water. Dr. Murrell was led to try it, having noticed the benefit derived from the treatment administered by a London quack, whom it was believed employed this drug. The five cases in which I have so far

administered it have all improved in a gratifying manner, and it is with much confidence in its efficacy, that I recommend it to the profession. The first case in which I used it was one of catarrhal laryngitis, in a patient 26 years of age, with phthisical family history. After the second inhalation of a drachm and a half of ipecacuanha wine and an equal quantity of water, his cough was much relieved and the expectoration diminished; and after the tenth daily administration, he considered himself entirely well, and went to the country to continue work on a ranch. The vocal cords and mucous membrane of the larynx were less congested after the third application, and appeared quite healthy when he discontinued treatment. When first sent to me for treatment his paroxysms of coughing were violent and almost momentary. This condition had existed for more than a week. A second case was similar in its effects, in a young man of 30, who had been suffering for several months, and had been under my treatment for the laryngeal affection for three weeks previous to the use of this remedy without very marked improvement. The three remaining cases present no special point of interest. It may be administered with a steam atomizer or a hand spray. If used by the latter method, the solution should be warmed previous to its inhalation

Sacramento, Cal. WM. ELLERY BRIGGS, M. D.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M. D., Sacramento, Cal.

Measles.—The investigations of TOBEITZ in the Children's Hospital of Graz lead him to the conclusion that the pneumonia of measles is always lobular and results from the extension of a bronchial catarrh. The exudate is predominently cellular and disposed to necrotic decomposition. The micrococci often found therein are not peculiar to the disease.—*Archiv. f. Kinderkeilk.—Centralblatt f. kl. Medicin, No. 14.*

The Treatment of Sterility and Obstructive Dysmenorrhea.—DR. THOS. MORE MADDEN believes that cervical and Fallopian stenosis are the chief causes of these conditions whose frequency and importance are far greater than generally believed. Eleven per cent. of the gynecological cases coming under his observation during the past ten years have been of this character. The careless prescription of alcohol for dysmenorrhea often ends in hopeless inebriety. Cervical stenosis is best relieved by the thorough use of Simpson's metrotome anteriorly and posteriorly from internal os to external, followed by forcible dilatation by the author's dilator, which differs from other instruments of this class in dilating from within outwardly. The operation should be done under the anesthetic about one week after the termination of the last painful menstruation, and should be preceded by daily hot water syringing, which is freely used during the operation and immediately on its completion. The cervix is then packed to distension with "Lawton's" cotton saturated with glycerine of carbolic acid. Subsequent pain should be relieved by opiates and poultices, and the patient kept in bed on low diet

and daily syringed with hot water for eight or ten days. After this period a flexible tube or uterine stem pessary is introduced and worn for another month, when the patient may resume marital relations with a fair probability of subsequent impregnation and almost absolute certainty of immunity from recurrence of dysmenorrhea. Of the other causes of obstructive sterility, perhaps vaginismus is the most frequent. Its explanation is generally to be found in the hysterical temperament. Local and general sedative treatment should precede and accompany operative measures—forcible dilatation, and if this does not suffice, either Emmets' or Sims' operation.—*Dublin Journal of Medical Science*, April, 1888.

Fibromyitis.—Dr. Ménière defines fibromyitis as an acute inflammation of a uterine fibromyoma, terminating either in resolution or in suppuration. Vascularity of the neoplasm predisposes to inflammation. As occasional exciting causes, may be mentioned external violence, chilling of the skin, long and rapid walks, long standing and the fatigue occasioned by certain forms of labor. Fibromyitis is certainly less frequent at the menopause and afterward than between the ages of 25 and 35. Child-bearing and marriage seem to have no influence in its development. Fibromyitis announces itself suddenly by general malaise, immediately followed by loss of appetite, thirst, nausea, vomiting and especially by severe pain at a point of the abdomen corresponding to the sudden enlargement of the tumor. The tumefaction is usually situated either at the right or the left. In from two to four days the tumor produces a prominence of the abdominal wall at the inflamed spot. Palpation demonstrates considerable increase in the volume of the fibroid from day to day, and in six or eight days the tumor sometimes extends to the hypochondrium. Palpation is painful and percussion dull, in contrast to the usual intestinal tone. Severe lancinating pain in the pelvis and lower abdomen irradiating to the thigh of the affected side, constitutes one of the most disquieting of the early symptoms. It is generally continuous, sometimes exacerbating, like hepatic colic with which it has been confounded. As a rule there is no chill, and in three or four days the fever falls while the other symptoms persist. The vaginal discharge is suppressed at first to reappear when the disease reaches the acme. It is successively milky, serous, sero-sanguinolent, sometimes simulating the menstrual flow. At this moment the patient experiences relief which she attributes to the establishment of menstruation. Unfortunately this relief is but temporary, the flow stops, the pain returns, to cease again on the reëstablishment of the sanguinolent discharge. Fibromyitis, terminating in resolution, rarely lasts longer than six weeks; terminating in suppuration, it may persist for six or seven or eighteen months.—*Gazette de Gynécologie*, April, 1888.

Treatment of Endometritis.—Formerly, says Dr. Verchère, metritis was regarded as the local expression of a diathesis, and was to be combatted by constitutional measures only. Every metritis, however, whether simple or fungous, cervical or corporal, superficial or profound, is infectious in character and in origin. The recognition of these facts naturally conducts us to a rational treatment, the destruction of the infective material and the cure of the lesions determined by it. The ap-

palling disasters that inspired our predecessors with a not unwholesome fear of even the slightest surgical interference with the cervix are easily explained by the infectious field of operation. Hence, our first care must be to prepare the patient—the vagina must be rendered aseptic. I have long insisted on this, and here, if possible, asepsis is more imperative than in any other surgical procedure—it should be the inviolable rule. The uterine cavity is closed or nearly so, the cervical canal permitting but difficult access from without and imperfect escape of secretions from within. These secretions accumulate, and when they become purulent the uterine cavity may be not inaptly compared to an abscess with an insufficient fistulous tract. This comparison reveals the necessity of immediate intervention. Every purulent cavity should be opened, thoroughly and antiseptically. The purulent cavity of the uterus is no exception. Dilatation of the cervical canal facilitates not only the escape of pent up secretions but also the application of remedies to the diseased mucous membrane. Moreover, it renders diagnosis possible by sight and touch.

Two forms of dilatation have been proposed—the rapid and the slow. The latter is always to be preferred, and hence only shall be described. Of this form two methods have been devised—one by tents, the other by tampons of progressively increasing size. The latter (Vulliet's) method (*vide* TIMES, Vol. I, p. 93) is much slower than that by tents, but by means of it Vulliet has succeeded in exposing the entire uterine mucous membrane to sight and touch. Dilatation by aseptic tents is preferable when the uterine cavity is easily accessible. It is more rapid and may be carried further. Laminaria and prepared sponge are the most suitable for this purpose. They should be immersed in a saturated ethereal solution of iodoform for some time before use. The tents should be introduced to the fundus so as to dilate the uterine cavity as well as the cervical canal. They should be withdrawn every two days and new and larger ones inserted until thorough dilatation has been obtained. In many cases even of chronic metritis, this dilatation with the coincident antiseptic dressing of the mucous membrane will effect a cure. When not we must have recourse to local treatment of a more positive character—either caustics or the curette. The former may be employed when the metritis is of recent origin and the mucous membrane is not hypertrophic. Pozzi extols the perchloride of iron, Emmet the tincture of iodine, Dolèris the glycerine of creasote. If soft hemorrhagic fungosities fill the uterine cavity the curette is indispensable. Previous to its use the uterine cavity must be made thoroughly aseptic by irrigation with a solution of corrosive sublimate. After the entire surface has been scraped down to healthy tissue the sublimate irrigation should be repeated, the vagina packed with iodoform tampons and the patient put to bed—*France Médicale*, Mar. 31, '88.

SURGERY.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Co's Hospital, Sacramento, Cal.

Bullet Wound of Liver, with Comminuted Fracture of Seventh, Eighth and Ninth Ribs.—A. P. FRICK, A. A., Surgeon U. S. A., reports the following successful case in the *Philadelphia Medical Times* of May

1, 1888: F. S——, a stock raiser, was admitted to the hospital at Fort Thomas, A. T., having accidentally shot himself about 2 P. M., March 12th, owing to his revolver, a Colt's 44, having fallen to the ground and exploded. Immediately after the accident there was profuse hemorrhage, which did not entirely cease for twelve hours. Being alone, and unable to walk or ride, he was not found until twenty-five hours after the accident. His friends, believing that the wound would shortly prove fatal, did not remove him; but the following day, as he was still living, they decided to seek professional aid. He was accordingly placed in a wagon and brought to Fort Thomas, entering the hospital on March 15th. On examination it was found that the bullet had entered on the right side, midway between the axilla and the anterior superior spinous process of the ilium, ranging downwards and backwards for a distance of six inches, the wound of exit being about one inch lower than the wound of entrance. Those portions of the seventh, eighth and ninth ribs lying in the track of the ball were comminuted. Two days after admission the patient was anesthetized, the track of the bullet laid open, the soft parts reflected, and the shattered portions of the seventh, eighth and ninth ribs for about two and one-half inches in length were removed. This exposed the right lobe of the liver, which exhibited a long, lacerated wound, with an abscess about one and one-half inches in depth, situated about the middle of the exposed portion. The cavity, which was discharging pus and bile, and the wound, were irrigated with bichloride solution 1:1000, a drainage tube passed into the abscess, and another placed in the track of the wound, and the parts brought together with interrupted sutures. A moist dressing with lead and opium lotion was used, the wound and drainage tubes being irrigated with bichloride solution twice daily. The central drainage tube discharged bile freely for the first ten days. The only complications which occurred were troublesome bed sores and slight necrosis of the proximal end of the ninth rib. Patient was discharged cured on June 1st, 1887.

Double Dislocation of the Hip Joints.—Dr. Richard Mead, in the *Australasian Medical Gazette*, reports a case of this unusual accident. A young lady was driving with three companions in a buggy. When going down a steep hill the horse became restive, and the front buggy wheel, off side, collided with a fence post while her right foot was depressing the brake. This probably produced the dislocation of the right hip. She then fell forward, giving a half turn towards the near side of the buggy, and was found between the front wheel and the body of the buggy, near side. The dislocation of the left joint must have occurred during this rotation, the femur being forcibly abducted while the weight of the trunk was thrown upon it. The luxations were readily reduced by manipulation.

Ectocardia Cured by Plastic Operation.—Dr. Lannelougue reports a case of ectocardia, with his subsequent operation, in *La France Médicale*. The subject was a badly nourished girl six days old. The functions of the body were normal, and with this exception, there was no deformity. In the middle of the sternum there was an ulceration a little larger than a 20-cent piece, a soft yellowish membrane forming the base of the

opening. On the following day this had disappeared, leaving the heart exposed. Soon after, active granulation set in, and fearing that the ventricle might become fixed in the cicatrix, he decided to operate. A vertical incision was made on each side of the opening, close to the raw surface, the flaps were then freed sufficiently to allow their inner borders to be approximated and united with sutures. Cicatrization was complete in twenty days. Two months after the operation the chest presented three slight linear cicatrices, the skin over the ventricles being firm and freely movable.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By Wm. Ellery Briggs, M. D., Sacramento, Cal.

Tracheotomy Without the Canula.—Thomas Addis Emmet, in the *New York Medical Journal*, favors performing tracheotomy without using a canula. He believes the canula to be the source of much trouble. To keep the wound open he advocates the use of thick lead wire passing around the neck. Through holes in the ends of this wire, and also through the skin and edges of the tracheal wound, silk threads were passed, and thus the opening was kept patulous. Dr. Emmet suggests that an improvement could be made in the operation if it was desirable to keep the tracheal wound open for some time, by making an oval opening into the trachea, removing a small portion of tissue on each side, and uniting the skin with the mucous membrane of the trachea.

Symptoms of Disease of the Sphenoidal Sinus.—M. Berger thus described the symptoms of this disease at the April meeting of the French Society of Otology and Laryngology: If the disease is limited to the interior of the sinus, all objective symptoms are absent, although a cephalalgia is frequently observed. When the disease has extended to the neighboring tissues it may cause sudden unilateral blindness, meningitis, fatal hemorrhage, retro-pharyngeal abscess, thrombosis of the cavernous tissues of the ophthalmic vein, and finally necrosis of the bone. When it produces pressure on the eye or the optic nerve, amaurosis may result. If the tumor perforates into the base of the skull, a meningitis or cerebral abscess results. Perforation of the sphenoidal bone may produce constant escape of cerebro-spinal fluid, exophthalmos, loss of function of the optic nerve and anesthesia of the second and third branches of the trigeminus. —*Le Progrès Medical.*

Aseptic Cataract Operations.—The following rules are formulated by Dr. H. Knapp for guidance in cataract operation. (1) Keep out bacteria or wash them off by germless, unirritating liquids; boiled water, boric acid and other indifferent substances dissolved in boiling water. (2) Prevent the multiplication of germs by antiseptics; watery mercuric bichloride, or alcoholic biniodide, chlorine water, nitrate of silver, and other substances in very weak solutions. (3) Perform the operation with the utmost degree of neatness and accuracy, and with a minimum of traumatism, avoiding bruising, scratching and tearing of any kind, so as to reduce septic conditions to a minimum. (4) Endeavor to obtain primary

union by freeing the wound from all foreign substances, by perfect coaptation of its edges, and by maintaining the greatest possible immobility of the organ until the closure of the section is firm. (5) Avoid constitutional infection of the wound. It is dangerous to operate for cataract as long as the constitution of the patient is under the active influence of specific disease; for instance, articular rheumatism, acute or chronic suppuration, syphilis, and the like. In some incurable diseases—for instance, diabetes—we must select the time when the vitality of the patient is least reduced.—*Archives of Ophthalmology.*

Antipyrin as an Analgesic in Ophthalmology.—At the May meeting of the French Academy of Medicine, M. GRAND CLÉMENT, of Lyons, stated that he had found the injection of antipyrin more rapid and certain than when administered by the mouth. In general it is the best analgesic in the following conditions: (1) In ocular pains, but especially in periorbital pains, it acts quickly and nearly always relieves. (2) It relieves spasms less promptly and with less certainty. (3) Finally it generally favorably modifies inflammatory processes of the globe, especially if accompanied with ciliary pain. Its beneficial effects are the more noticeable when the pain accompanying the inflammatory condition is the most intense. In regard to its special application, the author mentioned its effects in keratitis, iritis, and especially glaucomatous irido-choroiditis, in which it rapidly relieved the pain and improved the condition after two or three injections. It also produced a favorable influence over a case of hemicrania of long standing, on tic-douloureux, on a case of monocular hemeralopia, also in cases of episcleritis, sclero-choroiditis and floating bodies in the vitreous, all of which are ocular troubles which are very tenacious and resistant to present methods of treatment. He had used the injections more than three hundred times, using 25 cg. of antipyrin and ½ cg. of cocaine in ten drops of distilled water. He had never had an abscess follow its use, having been careful in regard to the purity of the products. But it always caused some swelling where it was injected which continued for 8 or 10 hours. M. Grand Clément predicted that antipyrin would render a great service in ocular therapeutics when all the indications for its use had been determined.—*Gazette des Hôpitaux.*

Cocaine as a Means of Differential Diagnosis in Diseases of the Larynx.—BAUMGARTEN says (*Wiener med. Wochenschrift*) that one of the most frequent and most difficult symptoms to interpret, even by the most expert laryngologist, is edematous inflammation of the vocal cords. This lesion may be due to a simple catarrhal or tubercular condition, scrofulous, syphilitic, or cancerous change. Often the most careful examination of the patient's constitution and antecedents do not clear up the diagnosis. The author has found in cocaine a sure criterion. He knows that cocaine causes contraction of the capillaries in the region to which it is applied; it causes pallor, a local anemia more or less persistent. This takes place when the affection is a simple catarrh; but the same results are not attained when the etiological factor is more serious, as, for example, syphilis. Thus, with the aid of a brush, if a few drops of cocaine solution are applied to the vocal cords, and the mucous membrane does not become pale, we can be sure that we have to deal with a serious disease and not

a purely catarrhal inflammation. Baumgarten performed the experiment a number of times. He employed a 10 per cent. solution of cocaine.—*L'Union Médicale.*

DERMATOLOGY AND VENEREAL DISEASES.

By G. L. Simmons, Jr., M. D., Sacramento, Cal.

Treatment of Gonorrhea by Antrophores.—Dr. Hugo Lohnstein, Professor of Zuelzer's polyclinic in Berlin, has found (*Lancet*, March 24, 1888), as the result of observations on ninety-three cases, that gonorrhea, both in its acute and chronic forms, usually yields more readily to systematic treatment by a kind of soluble medicated bougies, called "antrophores," than to other methods. These antrophores are made by Stephan, of Truen, Saxony, and consist of a nickel-plated metallic spiral, containing a soft medicated material, the basis of which is glycerine and gelatine —the same material, in fact, as the hektograph and other graph compositions. Before the introduction of the bougie, the urethra is well syringed out by a Zuelzer's apparatus with a two per cent. solution of boracic acid. Regarding this, Dr. Lohnstein remarks that the mere passage of urine by the patient is quite insufficient to cleanse the passage from secretion, as any one may easily convince himself by an examination with the endoscope. As a rule, a single bougie is sufficient during twenty-four hours. Indeed, when the introduction was repeated several times a day no better result was obtained, but, on the contrary, the urethra appeared to be irritated by the instrument. The bougies must be differently applied in acute and chronic cases. In an acute gonorrhea, where the prostatic portion of the urethra is not affected, the bougie should not be introduced into it, the surgeon being able to tell when the prostate is reached by the greater resistance caused by the circular muscular fibres. In chronic gleet, where the prostatic portion is affected, the bougie should be made to enter it, but ought always to be kept from entering the bladder, which may bring on strangury and even cystitis. The surgeon guards against this by asking the patient to tell him when he feels as if the instrument were in the bowel. He then knows that it is in the prostatic portion. The medicament mostly used by Dr. Lohnstein is thallin. For the first and second days, bougies containing two per cent. of this drug are employed. Even this strength occasionally produces a sensation of burning. On the third, and subsequent days, a bougie with five per cent. of thallin can usually be borne. It is not advisable to allow patients to introduce the bougies themselves, for they are liable to set up hemorrhage and to push the instrument into the bladder. In an acute case the thick secretion is usually changed by the second or third day into a thinner and clearer fluid; during the next few days the quantity of this gradually diminishes, and the secretion has generally entirely ceased in from eight to fourteen days' treatment. Complications, such as are produced by injections very rarely occurred; epididymitis never; cystitis in two cases only, and in these it was probably due to faulty introduction of the bougies. Several cases were cured that had resisted other measures. The most difficult class of cases to treat is, of course,

the chronic form. Here it was often found that though the secretion could be greatly reduced, any attempt to lengthen the intervals of the introduction of bougies was liable to be followed by a return of the original condition. Where the prostate and its ejaculatory ducts are affected, it is often necessary to have recourse to bougies of different kinds, as zinc, tannin, rhatany, nitrate of silver, quinine. or sulpho-ichthyolate of ammonium. Of course where instead of the mucous membrane generally being inflamed, there is a small ulcerated patch, these bougies are useless, and the endoscope must be employed as a guide to special local treatment.—*Therapeutic Gazette*, May, 1888.

Psoriasis, a Sign of Health or Disease.—Mr. Malcolm Morris discusses a rather interesting question, (*Hospital Gazette*) whether psoriasis is a constitutional or a local disease? He insists on the fact that psoriasis occurs almost exclusively in healthy people, and is associated neither with struma on the one hand nor gout on the other. Indeed, he points out that when by chance a person suffers from both complaints, an attack of gout seems to drive away the rash. In some, he concludes that ill-health and psoriasis are incompatible, and attributes the action of drugs to their lowering effect on the economy at large.—*Medical Register*, April 7, 1888.

The Therapy of Gonorrhea.—Dr. E. Finger, of Vienna, contributes to the *Internationale klinische Rundshau*, No. 19, 1888, an article upon "Some New Antiblenorrhagics," in which he shows apparently, that Vienna physicians are a little behind the Western world in the treatment of gonorrhea. Among what Dr. Finger calls recent internal remedies, are two which he thinks are of especial value, viz: Sandal-wood oil and kava-kava. The former, he finds, possesses the same value as copaiba and has the advantage of not irritating the stomach. He gives it in 5-gr. capsules, of which four to six are taken daily. The kava-kava is given in doses of 20 to 30 drops of the fluid extract. The indications for both drugs are the same. They are to be given in acute urethritis, anterior or posterior, and in acute urethro-cystitis. Both are contraindicated in the very severe forms of urethritis, the so-called "phlegmonous gonorrhea." With regard to topical measures, he speaks in the highest terms of lanolin ointments. Lanolin has the advantage of being aseptic and antiseptic, and also of being absorbed by the mucous membrane, therefore carrying deep into it the active agent with which it is united. The ointment is applied by means of a specially constructed syringe, which consists of a catheter—No. 16 to 18—with a single opening at its vesical end. In this is fitted a piston, the whole holding about one decigram of ointment. Lanolin ointments are indicated only in the ordinary acute forms of gonorrhea, and not in the chronic types. The formula given by Finger is as follows:

℞—Argenti Nitrat. vel Cupri Sulph., gm. i to iii.
Lanolin, ... xcv.
Ol. Oliv. . . . v.
M.

In obstinate cases thefollowing is recommended:

℞—Potas. Iodidi, ... gm. v.
Iodin. . . . . i to iii.
Lanolin. . . . xcv.
Ol. Oliv. . . . . v.
M.

Dr. Turpa Impallomenti has been employing one per cent. solutions of creasote in decoction of camomile. His results are that "five out of seven patients were cured in six days." Dr. Rohé (*Maryland Medical Journal*) recommends ten per cent. dilutions of Liq. Sodæ Chlorinatæ. He finds that "the discharge promptly ceases in the majority of cases." —*Medical Record*, May 26, 1888.

MATERIA MEDICA AND THERAPEUTICS.

By Wm. Watt Kerr, M. A., M. B., C. M., Professor of Therapeutics, University of California, San Francisco.

Sulphonal, a New Hypnotic.—Recent numbers of the *Medical News* and the *Medical Record* make mention of a new hypnotic, chemically known as "diæthylsulfondimethylmethan," but called sulphonal by more ordinary mortals. The growing prevalence of insomnia, together with the development of the various habits induced by the use of remedies prescribed for the purpose of overcoming this condition, have created the desire for a hypnotic that will bring about the physiological conditions that favor sleep without incurring the risk of dangerous secondary effects. Prof. Kast, of Freiburg, claims these properties for sulphonal, a substance that appears in the form of colorless crystals, slightly soluble in water, and belongs to the acetal group of compounds. He says that "the drug has none of the disadvantages inherent in the deadly narcotics, and it is much more reliable than any of the bromides. This new body does not disturb digestion; it is not constipating; it has no unpleasant after effects; it is perfectly harmless; it does not invite the formation of a 'habit,' and, finally, it does not appear to lose its efficacy, even when employed for a long period." Its influence seems to be exercised more particularly upon the gray matter of the brain; it has little or no effect upon the circulation and respiration, while both microscopic and spectroscopic examinations show that the composition of the blood is unchanged. The usual dose is from fifteen to forty grains, given in a wafer or capsule—females being much more susceptible to its influence than males. It is specially applicable to the simple insomnia of neurotics together with the restless wakefulness so commonly associated with acute febrile affections, cardiac troubles and other allied conditions. Dr. Rabbas, Marburg Lunatic Asylum, has published a report of its use in twenty-seven cases in which it was administered on more than two hundred different occasions, and as all of these patients had previously been treated by means of other narcotics, a comparison between results was readily made. His conclusions were that sulphonal is a hypnotic, which in moderate doses produces better and more reliable effects than amylen

hydrate or paraldehyde in maximum doses. While slower than chloral hydrate in its action, its effects are more enduring. Prolonged use does not necessitate increased doses, neither does it interfere with appetite, digestion, or any of the bodily functions.

Salicylic Acid in Ringworm.—Dr. N. F. Penn, of Lexington, Ky., recommends a saturated solution of salicylic acid in collodium as a cure for ringworm. The solution is painted on to the affected portion of skin once every day, and generally one application is sufficient. It causes some pain, but only for a short time.—*N. Y. Medical Journal.*

Sodium Salicylate in Tonsilitis.—M. Graham writes to the *Practitioner* giving his experience in the treatment of tonsilitis by means of salicylate of soda. He finds that when the drug is given in doses of from ten to twenty grains every one or two hours, relief from the severe pain is soon experienced. His internal treatment is accompanied by the use of warm gargles. Had M. Graham's treatment terminated here we should no doubt have attributed the success of the method to the salicylate, but notices of the benefits derived from the free administration of bicarbonate of soda in the same disease, led him to try this latter remedy, with the result that he found the bicarbonate even more efficacious than the salicylate, while it produced none of the disagreeable effects, such as tinnitus, vertigo and deafness.

Cocaine in Whooping Cough.—Dr. Weintraub, of Eydkuhuen, reports success in treating whooping cough by means of cocaine, after the usual remedies and expectorants had failed. The following is his formula:

℞—Cocaine Muriat. grs. iii.
Aq. Amygd. Amar. ʒiiss. M.

Sig.—ten to fifteen drops several times daily.

As soon as this treatment was commenced the cough diminished, the vomiting ceased and in two weeks the disease disappeared. No toxic symptoms were manifested.—*Therapeutic Gazette.*

[I have used a solution of cocaine with very gratifying results in the treatment of whooping cough and also of spasmodic croup. In such cases it is better to let the patient inhale it in the vapor produced by a nebuliser than to give it by the stomach.—W. W. K.]

MEDICINE AND PATHOLOGY.

By Albert Abrams, M. D., Demonstrator of Pathology, Cooper Medical College, San Francisco, Cal.

Chronic Diseases of the Heart Muscles and Their Treatment.—Dr. Oertel, in a paper on this subject, read before the recent Medical Congress in Wiesbaden, deals with the dietetic-mechanical treatment of these affections. Diseased changes of the heart muscle can occur in a quantitative as well as in a qualitative direction. The former refers to an increase in the muscular mass, which may be absolute or relative, and may involve a part or whole of the heart. The increase of the muscular substance is a compensatory hypertrophy, and should not be an object of treatment. As far as its reduction is concerned, indeed it is the duty of

the physician to preserve this compensatory hypertrophy, and to restore it if lost. Qualitative alterations of the muscular substances result from inflammatory processes, disturbances of nutrition and degenerative changes. All the chronic diseases of the heart muscle are attended by circulatory disturbances, and when the force of the heart is reduced, anemia, venous stasis, kidney affections, etc., result. He divides his method of treatment into the dietetic and mechanical. The following conditions are to be combatted by the dietetic treatment: (1) When there is an increased amount of the corporeal fat and when plethora exists with commencing weakness of the heart, the mode of nutrition should aim at increasing the albuminoids, diminishing the fat-building substances, and interdicting the ingestion of fluids. (2) When obesity with serous plethora exists, increase the albuminoids, diminish the substances yielding fat, and reduce the ingestion of fluids. (3) In obesity in elderly people with hydremia, where not only the albuminoids, but likewise the fats, are in process of reduction, increase the albuminoids, administer moderately, fats and carbo-hydrates, and diminish the fluids. The mechanical treatment is principally carried out by "hill climbing," which tends materially to reduce the disordered circulation. This causes increased heart-action and facilitates the return of venous blood to the right side of the heart. The intraärterial blood pressure is at first increased, but is rapidly followed by dilatation of the arteries, with a diminished tension of their walls. The exit of blood from the left ventricle is facilitated, the quantity of arterial blood is increased, and of venous blood diminished. The respiratory apparatus is likewise active in restoring the disordered circulation. Diminishing the work of the heart is another object to be attained, and is best accomplished by reducing the fluids of the body, by limiting their introduction with the food, and increasing their elimination by the skin and kidneys. Oertel's method is especially successful in cases of fatty heart in senile individuals without sclerosis of the coronary arteries, in serous plethora, and in cardiac weakness following valvular lesions.—*Deutsche med. Wochenschrift*, April 19, 1888.

The Etiology and Classification of the Anemia of Puberty.—Dr. E. MacDowel Cosgrave speaks of the severe anemia often accompanying puberty, the etiology of which is by no means clear. It is usually attributed to a functional disturbance of the organs of generation, to an hereditary fault of the blood and blood vessels, and finally, considered as a neurosis or the result of constipation. Most of the predisposing and exciting causes to which it is ascribed are merely coincident with the time of life at which it appears. Conditions which lessen metabolism, such as want of air and exercise, are probably the most important exciting causes. It cannot be explained by constipation; it occurs in both sexes at all ages, and is characterized by dyspnea, palpitation and other symptoms of anemia only at puberty and the menopause. Iron without purgatives will often cure. He divides the disease into three classes: (1) Fat anemia. (2) Anemia of overgrowth. (3) Anemia of malnutrition. The first form is usually hereditary, occurring especially amongst the children of women who were married early in life. The habit is for men to select wives younger than themselves, which conduces to a premature

development of the female organs of generation. This results in "a sudden strain on the tissues derived from the mesoderm, which, unless there is good health, cannot be met. In the one case from deficient oxidation, etc., fat is deposited in the tissues; in another, the general growth of the tissues prevents the proper sexual development; in the third case, the nutrition is so bad that no extra strain can be borne." In the first class of cases, aloes, iron, meat and moderate exercise are indicated. In the second class of cases, avoid aloes. Fresh air, milk and the syrups of the iodide and of the phosphate of iron are of value. The indications for the third class, are country air, nourishment, cod liver oil and the sulphates of iron, quinine and magnesium in combination with hydrobromic acid. —*Dublin Journal of Medical Science*, May, 1888.

The Treatment of Cholera by Gymnastics.—Dr. Pauly has obtained good results in the treatment of even grave cases of this disease by forced walking. The treatment was suggested to him during the cholera epidemic which decimated the French camp in Morocco in 1859; the soldiers obliging their comrades, afflicted with cholera, to walk. This method of treatment is nearly always applicable unless the patient is too far advanced in the asphyxial stage of the disease. The procedure is best accomplished at night, owing to the "freshness of the atmosphere." Frictions with a towel immersed in cold water may be used on the patient during the forced walking.—*Bulletin Général de Thérapeutique*, May 15, 1888.

The Poisonous Action of the Ptomaines.—Prof. Brieger demonstrated on rabbits, before the Congress of German Surgeons, the action of three ptomaines—cadaverin, neurin and mytilotoxin. They all produce paralysis, convulsions, gastro-intestinal disturbances, salivation, etc. They all resemble chemical poisons in their action. They are only preserved in combination with gold, platinum and picric acid. (*Deutsche med. Wochenschrift*, May 10, 1888.) The same author elicited the important fact, that the ptomaine tetanin, heretofore found in the cadavers of tetanus patients, could likewise be found in the living body of individuals thus affected. Brieger found tetanin in the recently amputated arm of a tetanus patient together with tetanus bacilli which, when inoculated into animals invariably produced tetanus.—*Münchener med. Wochenschrift*, April 24, 1888.

Sacramento Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: JULY, 1888.

HIGHER MEDICAL EDUCATION.

The subject of Dr. A. Y. P. Garnett's presidential address has attracted considerable attention even outside of the profession, and it must be regarded as a healthy sign that many of the leading daily papers have discussed the question in a most satisfactory spirit. Dr. Garnett disarms criticism by confessing that his suggestions "embrace some very radical and seemingly impracticable changes." They include a compulsory four years' term, for all medical schools, with a good preliminary education. Any college failing to show a greater number than fifty matriculates annually for three consecutive years, to be abolished. An *examining* board for each State and Territory to have the exclusive power of granting licenses to practise. It will readily be seen that in every direction an enormous amount of opposition would be encountered if it were sought to put this scheme into operation. We do not believe that the clause requiring fifty matriculates annually as a test of fitness to exist, is practical or just. Each school should be judged by its results, and its facilities for instruction with its standard of requirements should weigh in the decision. Dr. J. P. Widney, of Los Angeles, in his report to the State Society as Chairman of the Committee on Medical Education, makes some valuable suggestions which have not attracted the attention that they deserve. His scheme is both comprehensive and practical. It would admit of the existence of any number of medical schools, all of which should confirm to certain requirements, including a three years' graded course as a minimum. No school would have the power of granting a qualification to practise, this authority being vested in a medical department, connected with the State University, for higher education only, through which the degree of

M. D. should be obtained. This plan is really analogous to the system in operation for many years in the old world. There, schools are numerous but the licensing bodies are few and progress towards a uniform standard of qualification is being made in many quarters. Legislation with this object would be necessarily by each State acting for itself, and special provisions could be incorporated in States where universities, of which Harvard is a type, exist, excepting them from the operation of the enactment. Meanwhile, the State Society has in contemplation an act providing for a State Board of Examiners who shall examine every person intending to practise in California. The adoption of this bill will logically carry with it certain professional consequences, but if we are honest and consistent these must be accepted without reservation. We believe than an enactment of this nature would be generally acceptable, and that it will be a material benefit to the public and to the profession.

NOTES.

American Public Health Association.

The sixteenth annual meeting of the American Public Health Association will be held at Milwaukee, Wisconsin, November 20th to 23d, 1888. The following subjects have been selected for discussion at the meeting: The Pollution of Water Supplies; the Disposal of Refuse Matter of Cities; Animal Diseases Dangerous to Man; Maritime Quarantine, and Regulations for the Control of Contagious and Infectious Diseases and their Mutual Relations. All papers must be in the hands of the Secretary (Dr. Irving A. Watson) twenty days prior to the annual meeting.

Annual of the Universal Medical Sciences.

We have received the first issue of the *Annual*, which comprises five substantial volumes. Its object, as stated, is "to collate the progressive features of medical literature at large and clinical data from countries in which no literature exists, and to present the whole once a year in a continued form, prepared by writers of known ability." The work has been well done, and the five volumes include an immense amount of information. The illustrations are numerous and good and the typography excellent. It is carefully indexed, with a comprehensive system of reference. As might be expected, the work is not free from errors, and we notice that an instrument for performing optico-ciliary neurotomy,

described by Dr. W. E. Briggs, of this city, is depicted as a strabismus hook. The work is most creditable to the editor, Dr. Charles E. Sajous and his associates, while the publisher, Mr. F. A. Davis of Philadelphia, has not spared expense in its production.

Rush Monument Fund.

The report of the Rush Monument Committee of the American Medical Association, can scarcely be regarded as encouraging, the total amount on hand being only $709.19. It evidently needs more active canvassing than is at present the rule. The fund has now been in existence for two years, and unless more rapid progress is reported will fail to realize the hopes of its founders. The Medical Society of this State has contributed $105, in individual subscriptions. A list of the subscribers is published in the *Journal of the American Medical Association*, for June 2, 1888.

The Index Medicus.

The medical press has taken up the cause of the *Index Medicus* in good earnest, and it is gratifying to see that the suggestion which we made some time since of subscriptions by medical societies is being generally indorsed. A correspondent of an Eastern journal suggests that the subscription price be lowered, and some reading matter added This latter would, we think, destroy the distinctive character of the *Index*, while the former has already been promised when the returns will justify it. It has also been suggested to obtain a subsidy from the State; but, though the object be a worthy one, it is hardly within the scope of practical politics. California now receives four copies—the State Society having added its subscription. There ought soon to be five additional subscriptions, viz: two from societies in San Francisco, one in Oakland and one each in Los Angeles and San Diego. We shall have great pleasure in reporting the continued success of this movement, which every physician should encourage, for purely selfish reasons.

Determined Attempt at Suicide.

About two months ago the daily papers mentioned that a Chinaman, at Fresno, who had attempted suicide by hanging in the jail of that city, had subsequently tried to destroy himself by driving a sharpened piece of wood into his abdomen. We were at that time unable to obtain particulars of the case, but have since ascertained the following facts: The stick was one inch in breadth by one-sixth of an inch in thickness, and was driven in to the depth

of four inches with an axe helve. The wound was vertical and about two inches above the umbilicus. None of the viscera were injured. Antiseptic dressings were applied, and no internal treatment, except a dose of castor oil, was used. There was no elevation of temperature and no suppuration. The patient was discharged cured on the eighth day following the injury.

One Hundred Visits in One Day.

Early this year an item was going the rounds of the medical press that a New England physician had visited thirty-five patients and attended three obstetric cases in twenty-four hours. In consequence of this we stated in the March issue of THE MEDICAL TIMES that "a practitioner in this city once made one hundred visits in one day, and has four times attended four confinements in the twenty-four hours * * *. This was done in addition to other business." The item was copied correctly into several journals. In the *Medical Age* the statement was made to read, one hundred visits, four confinements and other business in twenty-four hours. Knowing the unfortunate tendency of the editor of that journal, we at first regarded the matter as a practical joke. We were, therefore, surprised and grieved to find that our esteemed contemporary, the *Medical Record*, unmindful of its responsibility as "the largest circulation," and oblivious of the deplorable habit of our brother from Michigan, had gravely accepted his garbled statement, devoting an editorial to the question and, amongst other hard language, calling our respected friend a "hyperkinesis." The editor of the *Medical Age* had promised his readers to discount our statement; and, knowing the enterprise of his city and the fertility of his imagination, we had been expecting something very large. We were disappointed; for in his issue of April 10, our contemporary says: "We are obliged, after careful inquiry among Detroit doctors, to yield the palm to the Sacramento practitioner who made 100 visits and attended four confinements, besides attending to other business, in twenty-four hours * * *. This analysis leaves him no time for the other business which he claims to have transacted. The glorious climate of California is productive of huge specimens of other things than trees and vegetables."

The original item was not published with any serious intention; but at the time we were perfectly satisfied of its veracity. Our friend has kindly examined his books (a work of no small labor, as date and year had been forgotten) and we have verified the

following facts. On Sunday, June 21st, 1868, eighty-seven different families were visited 100 times; one case of opium poisoning was visited five times; nine families were visited twice. The last visit was made between 10 and 11 P. M., the first about 4 A. M. Some office business was done the same day. Three horses were used in the day's work. We may add that there are few other cities in which it would possible to accomplish this task. The ground is almost perfectly level, the roads at that time of year in excellent condition, while the city is laid out in blocks 320 by 340 feet—the population at that date was also more concentrated than at present. Twenty years have rolled by; the doctor is no longer a "young western physician," his son now claiming that title, but he expresses his willingness, should the occasion arise, to do it again.

Southern California District Medical Society.

This Society was organized June 8th with the object of "uniting the whole southern section of the medical profession into one body." The meetings are to be held semi-annually, the next being on the first Wednesday in December. The following were elected officers for the ensuing year: President, M. F. Price. First Vice President, C. C. Valle. Second Vice President, C. A. Rogers. Secretary, John L. Davis. Treasurer, W. G. Cochrane. Censors: Walter Lindley, W. R. Fox, R. B. Davy, H. B. Lathrop, and K. D. Shugart. The Society already numbers 46 members.

Annals of Surgery.

The *Annals*, which is the only journal in the English language devoted exclusively to surgery, has entered upon its fourth year. It is published simultaneously in the United States and in England. The editors are Dr. L. S. Pilcher, of Brooklyn, and Mr. C. B. Keetley, of London, assisted by a staff of able writers. The publishers, J. H. Chambers & Co., St. Louis, Mo., have produced a work which reflects much credit on medical literature in this country.

Wm. R. Warner & Co.—A Correction.

Messrs. Warner & Co., of Philadelphia, deem it necessary to state that they have no connection with the firm of H. H. Warner of Rochester, N. Y., the makers of various nostrums. We are satisfied that a misconception of this kind would be impossible in this country, as every physician is familiar with the names and products of this well known house, but it is a fact that some German journals have connected "Ingluvin" with the patent medicine firm, and warned their readers against its adoption.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting May 22, 1888.

The President, J. R. LAINE, M. D., in the Chair.

Fracture of Humerus with Obstinate Displacement.—DR. T. W. HUNTINGTON exhibited a case of cured fracture of the humerus, at the junction of the upper and middle third. There had been a tendency to displacement during treatment, the upper fragment going upwards and outwards to the extent of an inch or more. Patient had been recently vaccinated and had a large sore over the end of the upper fragment. After many attempts at permanent reduction, he was finally placed in bed, upward and forward extension being applied and a trough splint used to support the bones. The fracture had united at the expiration of the usual time. There was a slight projection outwards, but function was perfect.

Death from Collapse Without Apparent Cause.—DR. W. R. CLUNESS reported the case of a lady, 48 years of age, married, 3 children. Attended theatre during the evening of May 11, 1888, in her usual health. At 12:30 was summoned to attend, and found her in a state bordering on collapse; had first complained of pain in left hypogastric region; vomited freely, part of contents of stomach showing undigested food. She begged to have an emetic, but owing to the depressed condition ordered alcoholic stimulants; then administered chlorodyne to relieve pain, also bottles filled with hot water to feet and legs. Next morning found her free from pain, but still pale, feeble and almost pulseless. During this visit I discovered a tumor in the lower and right hypogastric region, extending upwards about an inch above the umbilicus, and conveying to the sense of touch the impression that it resembled the free border of the liver, which, however, could be felt in its proper place. The spleen, also, was quite large, but could not be traced downwards to form any connection with the tumor. At noon there was no improvement in her condition, notwithstanding the liberal administration of brandy and ammonia. In the evening Dr. Huntington saw her in consultation, but she was still failing and was now pulseless. She died at 11:30 P. M. At no time subsequent to my first visit did she experience any pain, nor was there any abdominal distension. The impression conveyed to my mind was that during the emesis a heart clot formed which gradually increased until she died.

DR. T. W. HUNTINGTON regarded the case as a very anomalous one. The tumor which he had felt had a sharply defined margin, and projected forward like a piece of pumpkin rind.

DR. G. L. SIMMONS had seen the patient six years ago. She was complaining of some bowel symptoms. He had noticed the tumor and regarded it as a dislocated spleen. In connection with the spleen was a tumor the size of a lemon. He regarded this as a cystic tumor attached to the displaced spleen. No treatment was adopted for the tumor, as she positively refused to discuss the question of operation. He believed that the fatal issue was due to a rupture of the cyst into the peritoneal cavity. This, though rare, was quite possible, and fully explained the symptoms.

Case of Ovariotomy.—DR. CLUNESS reported a case of ovariotomy. The patient was 47 years of age, mother of six children, the youngest aged 13 years. After her third confinement, twenty years since, she had considerable pain in the region of the right ovary. Her physician, Dr. Harkness, upon examination discovered a soft and yielding tumor. This was accompanied by some constitutional disturbance. The tumor disappeared

in a few days. Eight years ago she discovered "a fullness" in the same region, and subsequently was able to define a tumor which was movable. At this time the catamenia suddenly and unexpectedly ceased. The tumor steadily but painlessly enlarged, causing but little inconvenience. On examining her early in February last, I diagnosed a multilocular ovarian tumor of large size, and advised its removal as soon as the then existing inflammation at the right anterior portion of the tumor would have subsided. This opinion was concurred in by Dr. W. A. Briggs. Her condition having become favorable, the operation was performed April 11th. There were many extensive and firmly organized adhesions, and the omentum was torn extensively at several points in the efforts to separate it from the tumor. During this part of the operation the tumor was unavoidably lacerated at the point where the recent inflammation had existed, its ropy contents pouring over the right side of the abdominal wound in large quantities. I believe, however, that little, if any, of the fluid escaped into the abdominal cavity. The pedicle was small and was ligated by a stout silken cord well carbolized, and after the removal of the tumor by means of the scissors, the stump was thoroughly seared by the Paquelin thermo-cautery, and dropped. Three ragged and bleeding portions of omentum were then ligated with catgut and removed, the cut surface having been also seared by the cautery. There being considerable hemorrhage from a number of other points, the Paquelin was freely applied to each until bleeding had entirely ceased. The abdominal cavity was sponged dry, then flooded with a 1:10,000 bichloride solution, and the wound dressed in the usual manner. Good reaction followed, and the patient has made an excellent recovery, being at this date, May 22d, up and about. A 1:2000 bichloride solution was used for all purposes excepting the flooding of the abdominal cavity. The tumor weighed over 40 pounds.

Dr. H. W. Harkness, who had been mentioned as attending the patient, some twenty-five years ago, said that he was with her in a confinement when she did very well until the third day; there was then some abdominal tenderness. On examination, he found a tumor to the left of the median line, which was about the size of a billiard ball. The late Dr. Hatch had also seen the case. They believed that it was a new growth. Two weeks after it could not be found, and he concluded that it was a phantom tumor.

Dr. Cluness read a paper on the *Therapeutic Use of Alcohol*, published at page 308.

Dr. G. L. Simmons, in opening the discussion, said that there were often cases in which its recommendation should be withheld. He remembered the case of a married woman in whom the lacteal secretion had been deficient, and he had recommended light punches. Two years after this she was a confirmed tippler. Subsequently, during the progress of a suit for divorce, she stated that her addiction to alcohol had originated from his prescription. In old people, with failing heart power, he had frequently used stimulants and with good effect.

Dr. H. L. Nichols thought that the recommendation of alcohol in many cases was injudicious. In cases of pneumonia and of typhoid fever he had failed to get such beneficial effects unless when patients had been accustomed to its use.

Dr. I. E. Oatman wished to express his approval of the use of alcohol. He believed that nothing would take its place in certain diseases of a low type, and in those of a traumatic origin. It was useful in these cases by stimulating the heart and relieving nerve tension, and in this way equalizing the circulation. In typhoid fever, if stimulants were employed early, before marked indications arose, the result was likely to be better than when delayed. In pneumonia, there was a stage in which alcohol was of more value than any other stimulant.

Dr. A. E. Brune deprecated the indiscriminate use of stimulants; they should be employed systematically and their deleterious effects kept well in view. The first effect of the continued ingestion of alcohol was catarrh of the stomach. It should be used diluted, and never given on an empty stomach.

Dr. T. W. Huntington thought that in ordinary practice it was justifiable to select one form of alcohol and employ it constantly. He had used whiskey as a rule. Lately he had prescribed spirits of wine. He had found it reliable, certain and more easily borne by the stomach. In diphtheria it was most useful. Regarding the moral aspect of the question, he thought that it became the duty of the physician to prescribe abstinence from alcohol oftener than its therapeutic use. There can be no doubt that a very large number of patients apply to the physician for relief from a long train of obscure symptoms attributed in great measure to the occasional or habitual use of alcohol in some form.

Dr. H. W. Harkness said that during the last ten years of his practice he had rarely used anything but alcohol in pneumonia. He thought that it should be diluted. Alcohol did not assist peristalsis or digestion. He alluded to the advantages of Dublin porter, which did not, as asserted, act injuriously on the liver. In cases of over-exertion and prostration he had found it act most beneficially.

Dr. G. A. White had been taught, whenever in doubt as to its advisability, stimulate. He believed that alcohol was not now so freely used as in former days. During the last ten years he had not ordered it as freely as some ten years ago.

Dr. G. G. Tyrrell believed that the use of alcohol required great skill and judgment. The general advocacy of alcohol in disease was an injudicious course. He believed that he had seen fatal cases from stimulation; he understood that alcohol was not a food, but a pure stimulant.

The President said that the subject was both interesting and important. At least three-fourths of mankind used alcohol, independent of the advice of the profession, and this should be borne in mind when it became necessary to prescribe it. Alcohol was beneficial in abdominal and enteric trouble. It was also useful in wasting diseases. Here it both hindered tissue metabolism and supplied fuel. Nothing had been said as to its local application, which was most valuable. It was an antiseptic, and a reliable one. In diphtheria, both locally and internally, it was very valuable. There were cases of a malignant type where the dose of the poison was excessive; in these it should be used from the beginning. The indiscriminate advice, particularly to the young, to employ it without supervision was most reprehensible.

SPECIAL CORRESPONDENCE.

LONDON.

[FROM OUR OWN CORRESPONDENT.]

The New President of the Royal College of Physicians—University Education in London—The Milroy Lectures—Heart and Lung Diseases and Insanity—The Tongue in Disease—Uric Acid and Epilepsy—The Great Toe Centre—Anti-rabic Inoculations—The Illness of the Emperor and the Quarrels of his Physicians—The Marshall Hall Prize—The Croonian Lecture—The Linnean Centenary—The forthcoming Meeting of the British Medical Association in Glasgow.

The event of greatest interest in the medical world of London since I wrote to you last has been the election of a new President of the Royal

College of Physicians. The office is an annual one, but it is the custom to reëlect the retiring President, year by year, for four or five years at least, and often for many more. Thus Sir Henry Halford, the eminent physician who attended George III during his period of mental aberration, and afterwards George IV and his hard living friends (thereby becoming a great authority on gout), was President from 1820 until his death in 1844. Sir Thomas Watson was President for five years; Sir George Burrows for a like period, and Sir William Jenner for seven. It thus happens that the President elected to succeed Sir William Jenner this year is only the twelfth elected since the beginning of the century. The post is one of great honor and consideration, and very keen was the contest for it on this occasion. The election is by the Fellows voting by secret ballot, and at the first ballot Dr. Richard Quain, F. R. S., the editor of the well known *Dictionary* came out at the head of the poll, but as he had not an absolute majority a second ballot was held and after a close contest, causing much excitement during the counting of the vote, Sir Andrew Clark, Bart., was found to have a small majority and was declared elected. Sir Andrew Clark, Bart., F. R. S., is a consulting physician to the London Hospital, and in the enjoyment, according to common report, of the largest and most lucrative practice in London, and probably in Great Britain. He is the personal physician of Mr. Gladstone, from whom he received his baronetcy, but the waning popularity of the politician has had no injurious effects on the practice of the physician. Sir Andrew is a fluent and forcible speaker, a good man of business and largely endowed with that shrewd common sense which is possessed by so many of his fellow countrymen who dwell across the Tweed. The election had special interest for the general body of the profession this year owing to the part which the College of Physicians is taking in conjunction with the College of Surgeons in obtaining the power to grant degrees to the licentiates of the conjoint Board of the two colleges. The movement is temporarily arrested owing to the appointment of a Royal Commission to inquire into the whole question of the higher education in London, which is at the present time on a very unsatisfactory footing. From the fact that the majority of this Commission are lawyers, an ex-Lord Chancellor of England and an ex-Lord Chancellor of Ireland being among that number, it would seem that the inquiries of the Commission will be directed chiefly towards the collection and sifting of evidence which will be given in the interests of various bodies — the conjoint Board, the Apothecaries' Hall, the University and King's College, the medical schools, the technical colleges and the University of London.

The courses of lectures at the Royal College of Physicians, delivered in accordance with the provisions of ancient legacies have been increased in number this year by the delivery of the first course of Milroy lectures, founded by the bequest of the late Dr. Gavin Milroy, a sanitarian who rendered great services during the Crimean war, and subsequently in more peaceful combats. The four lectures by Inspector-General Lawson dealt chiefly with the great principles which lie at the root of epidemiology, and they afford a suitable introduction to other courses in the future. The Goulstonian lectures were given by Dr. W. J. Mickle, the medical superintendent of an asylum at Bow, chiefly peopled by insane soldiers. He had collected a large mass of facts and statistics bearing on the relation of cardiac and aortic disease and phthisis to insanity, but failed to give a clear digest thereof, or to express the general result of his investigations. Some of his observations are interesting; for instance—that where mitral disease has a share in causing insanity, regurgitation tends to produce melancholic symptoms, while stenosis produces intense querulousness and delusions of persecution. Melancholia and delusions of persecutions appear to be also the most prominent mental symptoms associated with disease of the aortic orifice, but in these cases, varied by

occasional outbursts of excitement and violence. Among the cases of disease of the aortic valve in which there was also marked atheroma or dilatation of the aorta, expansive ideas were relatively common, and nearly one-third were general paralytics. In general hypertrophy and dilatation melancholic symptoms predominated and tended to be very chronic, ending in marked dementia. With regard to insanity as a product of phthisis, Dr. Mickle said that it was almost always characterized by hallucinations, generally with restlessness, maniacal excitement or expansive ideas, more rarely with a melancholy state.

Seldom, perhaps, has a more original course of lectures been delivered at the Royal College of Physicians than the Lumleian lectures this year by Dr. W. H. Dickinson. The subject was trite, "The Tongue as an Indication of Disease," and it was not until the lecturer had got well into the subject that it was perceived how much novelty might be extracted from it. The tongue, as he truly said, had been somewhat neglected, and it has become the habit to look upon the changes in the tongue too much as the consequence of local conditions, and thus to minimize their importance; yet we all look at the tongue and are all guided, perhaps more than we sometimes realize, by the indications which it affords. Dr. Dickinson had made a fresh appeal to clinical observation, and has accumulated a mass of facts which will tend to elevate the tongue once more to the important place which it once held as a diagnostic guide. It would be impossible, even if it were desirable, to give here the facts upon which his conclusions are based; suffice it to say that they appear to me fully to sustain his view that the tongue is an index of constitutional status rather than of local conditions or individual disease. The familiar white coat of fever consists of horny epithelium, and it is due far more to overproduction than, as has been recently thought, to deficient removal; the coating has reference to the general constitutional disturbance. When the coat, he said, is very thick, white, and strongly contrasted with the red margin, the indication is of acute disease; in other words, of a disease recent and severe. Were it not recent, the coat would not be so purely white; were it not severe, the thickness would not have come in the time. The enervated, dry, brown tongue is merely the white furred tongue dried, for experiment showed that the white fur turned brown when dried at 100° F., and it is dry because the amount of saliva secreted is deficient. The time honered statement which has been copied from text book to text book, that the state of the tongue indicates the state of the stomach and bowels, is shown not to be founded on fact; and it is pretty conclusively proved that even the furred tongue of constipation is due, not to that condition, but to the general constitutional state. I am glad to hear that Dr. Dickinson intends to republish his lectures (which have already appeared in the *British Medical Journal* and *Lancet*) in the form of a book, with additions, illustrative cases and colored plates; thus we shall have a practical proof that "the tongue has a whole book of prognostics written upon its surface."

Dr. Alexander Haig is publishing reports of some researches, with a very practical bearing on the influence of various drugs and foods in producing retention of uric acid in the body, but they are so scattered through a number of periodicals, that it is difficult to get a connected account of them as a whole. He has shown on clinical evidence that a certain form or forms of headache are due to this retention of uric acid, and he has recently suggested that some cases of epilepsy are due to the same cause, and could be cured by the administration of salicylates, which prevented the accumulation of uric acid. It is not possible to estimate precisely the value of the suggestion, which the author has advanced upon very slender statistical basis, but it will be worth while to keep the hint in mind.

In a case of traumatic epilepsy, in which trephining was successfully performed, Mr. Victor Horsley reported that he was led to operate at a

particular point, because he had observed that the fits began with convulsive movements of the great toe. The experimental observations upon which this course was grounded, have now been published. Working in conjunction with Dr. C. E. Beevor, he found that the focus of representation of the hallux in the cortex is practically as nearly delimited as that of the thumb, and it is situated in front of the upper end of the fissure of Rolando.

Little is heard at present of the anti-rabic inoculations of Pasteur, the only recent publication in this country having been an abstract report of an experimental inquiry conducted during 1886–87, by Mr. Dowdeswell, who confirmed the general accuracy of M. Pasteur's statements as to the infectivity of the cerebro-spinal substance, the short and less variable period of incubation in rabbits after inoculation by trephining, that in both dogs and rabbits the disease is essentially the same and is in both a paralytic affection, that the activity of the virus of ordinary so-called spontaneous or accidental rabies is increased by being passed through a series of rabbits; that the activity of the virus is inversely proportionate to the incubation period. He thinks that as the rabbit is so easily killed by the rabic virus while the dog is relatively refractory, the result of the treatment in man can only be tested by statistics. He found that in an infected animal the tissues did not become virulent till towards the close of the incubation period, and that none of the numerous drugs of different classes which he tried on the rabbit had any constant effect on the result of infection.

The illness of the Emperor Frederick has now, it is generally believed, reached a stage in which there is no longer room for even the most sanguine to hope for any great prolongation of his valuable life; he is practically bedridden, with a fluctuating temperature of the suppurative type; indeed, Sir Morell Mackenzie believes the Emperor to be suffering from chronic pyemia; little or nothing has been heard about the new growth for the last month. Sir Morell Mackenzie would, I believe, be very glad to be relieved from his somewhat irksome position, which is rendered doubly unpleasant by the attacks upon him in the German press, and by the unconcealed jealousy of many of his German confrères. The correspondent in Berlin of the London *Times*, has conspicuously taken the side of the so-called military party, and has telegraphed to London everything which he could hear to the disadvantage of the English physicians. It is stated that Mr. Mark Hovell, Sir Morell Mackenzie's assistant, who has been with the illustrious patient since last July, has instructed Mr. Lewis, a well known solicitor, to take proceedings against the *Times* for libel; but "the Thunderer," finding that it has no case, intends to insert an apology. It is said, but for this I cannot vouch, that one of the passages relied on by Mr. Lewis, for Mr. Hovell, was a statement in the telegram as published that "Mr. Hovell had not done much damage," whereas the telegram sent and delivered was "had not done such damage," *i. e.* as had been alleged! The printer's devil has much to answer for. It is also stated that the Berlin correspondent of the *Times* intends to bring an action for libel against Sir Morell Mackenzie, who has already put the peculiar German press law in force against the *Cologne Gazette*. Meanwhile, Sir Morell appears to remain in high favor with the Emperor, who has given him a decoration of a high order, and pays him a daily fee of $250; but these honors and emoluments will hardly console him for the loss of his London practice and connection, and the abuse which is daily heaped upon his head. Such men as Leyden, Senator, Bardeleben and Krause can consult with him, and he has been the chief guest at entertainments given by DuBois-Raymond and Helmholtz, yet Professor von Bergmann, who was pitchforked into his professorship when Langenbeck retired because Volkmann, Esmarch, and one or two

other leading surgeons had declined, does not find it consonant with his dignity to attend the Emperor any longer, and confides his motives first to the correspondent of the *Times*! It is now said, on what appears to be good authority, that the three specialists whose names were submitted to the Crown Prince at the time when laryngotomy was first proposed by von Bergmann, were Professor Rauchfuss, of St. Petersburg, Dr. Fauvel, of Paris, and Dr. Morell Mackenzie. It was probably from motives of policy, as much as from a natural preference for the countrymen of his wife, that the Crown Prince chose the last named.

The fame of Dr. Marshall Hall has been almost eclipsed by that of the new school of neuropathologists, who have built upon the foundation which he laid; we are periodically reminded of the great services which he rendered by the award of the Marshall Hall prize, which is awarded every fifth year for the best original work done and recorded in the English language during the previous quinquennium in neurology or neuropathology. The first recipient was Dr. Hughlings Jackson; the second, Dr. Ferrier, and the third is Dr. W. H. Gaskell, who is the Lecturer on Advanced Physiology in the University of Cambridge; he is an experimental physiologist of high rank, and has done much valuable work in connection with the functions of the sympathetic system; there is therefore a peculiar appropriateness in his selection, as one of the most important theories elaborated by Marshall Hall was that of reflex action.

The Royal Society has not many honors to bestow, yet many are the claimants for these few; scarcely is it possible to reward even the acknowledged leaders in the chief branches of the sciences. It is, therefore, gratifying to be able to record that this year the Croonian lecture will be delivered by a physiological chemist, who has won a world-wide reputation by his remarkable researches into the nature of albuminous bodies and the chemistry of digestion. Professor Kühne, of Heidelberg, who is coming to England to deliver the lecture on May 28th, has taken for his subject a discussion of the nature and sources of vital action—for so I translate his title: *über die Entschung der vitalen bewsgung*. He will speak in the German language, which will be rather a drawback, but the occasion will be interesting as the first in which the great British scientific society has recognized physiological chemistry in so conspicuous a manner. Professor Kühne will be entertained at dinner by the Physiological Society.

The Linnean Society will celebrate its centenary this month, and Professor Fries, who is the living successor in the Chair of Botany in Upsala of the celebrated Linné, better known under his latinized name of Linnæus, will deliver an eulogy of the great botanist. Professor Flower, who, it is just announced, will preside over the meeting of the British Association in 1889, will deliver a eulogy of Darwin, and Robert Brown and George Bentham, eminent botanists, will be eulogized by Sir J. D. Hooker and Professor Theselton Dyer, respectively.

Everything promises well for the meeting of the British Medical Asscion, in Glasgow, in August. Professor Gairdner, the President, is not only Professor of Physic in the University, and the leading physician of the west of Scotland, but a very remarkable personality. Sir George Macleod, who is to give the address on surgery, is the Professor of Surgery in the University, the chief consulting surgeon in Scotland and an eloquent speaker. Dr. William Macewen, who will give a special address in surgery, and Professor J. G. McKendrick, who will give an address in physiology, are worthy representatives of the younger school of workers in the metropolis of Western Scotland A special attraction from another point of view will be the Exhibition, which is to be opened this month. We are promised a display to rival the unique exhibition in Manchester last year, and in particular a great and representative collection of English sculpture, executed during the last half century.

The mention of fine arts, reminds me that the Royal Academy this year contains a very fine portrait of Sir William Jenner, by Frank Holl, and a still finer one of M. Pasteur, by Carolus Duran.

LONDON, May 10, 1888.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Typhoid Fever and Cold Baths.—Bromide of Potassium in Epilepsy.—Tertiary Syphilis in Children.—Nervous Disease related to Tuberculosis.—The Need of Exact Experiments in Selepathic Medicine.—Arthrectomy of the Knee.—Prolonged Activity of the Virus of Rabies.

M. Richard, as well as M. Juhel Rénoy, has treated many cases of typhoid fever by cold baths with good results. Richard quotes the statistics of M. Viger, surgeon of the hospital at Niort, where only two deaths occurred amongst thirty-six cases, one of which resulted from syncope, during convalescence. Viger, however, advises, at the same time, intestinal antisepsis by sulpho-carbonate water, iodoform and naphthaline, and occasionally administers quinine. Out of 76 cases of typhoid fever, Richard has treated 38 in the ordinary way, and 38 by cold baths. In the former the death rate was 10 per cent. and in the latter 5.25 per cent. The patients who are treated with cold baths rarely have delirium, stupor, somnambulism or ataxy. Nearly all adopt the lateral decubitus, as noticed by Vogl, of Munich. If patients subjected to refrigeration present fewer nervous symptoms, it is because the peculiar accidents of hyperpyrexia are due to an auto-intoxication by the products of malassimilation, which have accumulated in the blood at a high temperature. By lowering the temperature periodically, diuresis is promoted, and consequently the noxious matters of the blood are eliminated; this is further increased by the patient's drinking a glass of cold water whilst in the bath. Bronchitis and dothinenteritis, far from contra-indicating cold baths, warrant the continuation of this treatment, which also prevents the albuminuria, due to infectious nephritic dothinenteritis. M. Richard has only observed two cases of intestinal hemorrhage, one from ulceration, which was fatal; the other from congestion. In both instances the bath at 3 A. M. was omitted. He urges the necessity of isolating cases of typhoid fever in special buildings, with permanent baths. M. Du Cazal, in a recent epidemic at Clermont-Ferrand, bathed 40 patients out of 70, with perfect success. He believes that cold baths prevent intestinal hemorrhage, and is also of the opinion that the patients should be isolated.

Dr. Renaud renews, in *La France Médicale*, his interesting remarks on the treatment of epilepsy by bromide of potassium. The initial phenomena of epilepsy always appear in the same manner: giddiness, loss of consciousness, spasms, incontinence of urine; these constitute the *petit mal*. When once the convulsions appear, the crisis occurs without any appreciable cause. Idiopathic epilepsy is not only more frequently curable than was formerly believed, but in many cases long intervals between the attacks may be obtained. These remissions are almost equivalent to a cure. Bromide of potassium is the most efficacious of all drugs in the treatment of epilepsy. It not only lessens the disease, but abates the shocks and soothes the irritability, and calms without exciting the sufferer. In adults, to produce appreciable results, 4 to 6 gm. must be administered, and the dose may be increased according to the indications, to 9 or 10 gm. daily. The physiological effects of the drug are harmless. Temporary anaphrodysia is the only effect of which the patient need be warned. The conditions for obtaining satisfac-

tory results are: exceptional perseverence; absolutely pure bromide of potassium; a weekly surveillance of the effects; a year's continual treatment, and in the course of the second year a renewal of the treatment every three months for thirty days following. These conclusions were published by Legrand du Saulle in the *Gazette des Hôpitaux* twenty years ago. In accordance with his prescriptions, Henry Mure has prepared his "Syrup of Bromide of Potassium," absolutely free from iodate. The bad effect of the bromide salt on the digestive tract is neutralized by means of syrup of bitter orange peel. Each spoon full contains 28 gm. of the bromide. The prescription is thus simplified, and the ingestion of the remedy facilitated

In a clinical lecture at the Hôpital de la Pitié, Professor Verneuil alluded to several cases of tertiary syphilis in children and youths, in which the malady was not hereditary or congenital, but acquired after birth. In three of these cases the malady had been communicated to the children from the nipples of infected nurses. In three other cases cited, the origin of the infection was obscure, and it was not easy to determine whether or not the disease was hereditary. Verneuil concludes that there are numerous cases in which tertiary syphilis is observed in children and young people, but the origin is often obscure, and it is not always easy to determine whether the contamination took place after birth, or whether the malady was inherited from the parents.

M. Joffroy has under treatment a young man whose antecedents presented no symptoms of nervous affection. His eldest brother is strong and well; the second brother began to walk badly at the age of 12 years, and at 16 could not walk at all; at the same time were noticed incoördination of the upper limbs and curvature of the spine; this brother died of pulmonary tuberculosis. A third brother, when very young, had scarlatina, followed by atrophy of one thigh (coxalgia or infantile paralysis?). M. Joffroy's patient had scarlatina at 2 years of age, and only walked at 4 years; at 10 he began to walk sideways; at 15 years he exhibited a drunken gait, a vacant expression and deformity of the vertebral column. When examined in 1885 he presented: incoördination of motion and Romberg's sign, shuffling gait, slight deviation of the foot (equino-varus), clumsiness of the upper limbs, curvature of the vertebral column towards the left side, so that the right scapula was drawn towards the spinal column and slightly twisted. (This latter phenomenon has disappeared since 1885.) In 1885 weakness of the pectorals, trapezius the biceps and triceps was noticed. The countenance was vacant, and there was slowness and difficulty in the movements of the face; diplopia and vertigo, caused by visual troubles; difficulty in hearing and progressive amnesia. M. Joffroy pointed out the characteristics of the disease, and its apparent affinity with tuberculosis.

Professor Bernheim, of Nancy, in a judicious article (*Revue Hypnotique*, observes that, since recent events have led the medical profession to believe in selepathic medicine, experiments should be conducted in a more serious and conscientious manner. His suggestions to that effect have hitherto been utterly neglected. Substances having a definite action should be chosen, and enclosed in numbered tubes, by a person not present at the experiments, the written names of each put in sealed envelopes bearing corresponding numbers to those on the tubes. New substances should be chosen for subjects who have already been submitted to these experiments, in order to prevent their first impressions being recalled. Each of the various phenomena should be noted immediately after they present themselves. The envelopes should be opened only after the experiments have terminated and the subject is absent. If, after these precautions have been strictly complied with, the phenomena determined concord with the action of the substance, the presence of something more than the influence of suggestion in selepathic

medicine will be demonstrated. Professor Bernheim's own experiments on a young girl, considered susceptible to the action of selepathic medicine, have given negative results.

M. Chauvel has reported on four cases of arthrectomy, performed by M. Delorme in white swelling. Terrier called attention to M. Lucas Championnière's method of making a true resection of the knee—that is, a resection of the synovial membrane—as having been more rational and having proved more satisfactory than M. Delorme's method of arthrectomy. M. Schwartz recently performed arthrectomy of the tibio-tarsal articulation, to arrest the development of a tuberculous arthritis, where the articulation itself did not present any lesions. The foot has recovered all its former movements, and the results altogether are favorable to arthrectomy. M. Tillaux stated that in cases where the lesion was clearly limited to the synovial membrane, or when in resection of the knee the osseous tissue was affected, for instance, in cases of fungous synovitis, arthrectomy was clearly indicated. Kermisson protested against Delorme's method of arthrectomy without having previously subjected the patient to any special course of treatment, such as compression and immobilisation, which often gave good results, and might be the means of avoiding a surgical operation. Reclus recently performed arthrectomy, and resected one of the malleoli in a young woman suffering from a white swelling of the tibio-tarsal articulation, where compression and revulsion had been tried for eighteen months without success, and obtained a complete cure. Chauvel observes that, on account of the deformity caused by shortening of the limb in resection of the bones, that method was not always preferable to arthrectomy, and should be avoided when possible. Terrier says that resection and arthrectomy both furnish their own indication, but infers that resection would have been better in Delorme's case. Tillaux and Kermisson agreed that all medicinal agents ought to be tried before operation.

The virus of rabies is so active in buried corpses, that when subsequent doubts arise as to the nature of the disease which proved mortal, the disinterment of, and inoculation from, the medulla oblongata decide the question. M. Galtier has observed that the medulla oblongata of a dog, which died of rabies, removed seventeen days after death, then buried in earth for a further fifteen days, preserved all its virulence. Inoculations from it resulted in rabies twelve days subsequently.

PARIS, June 4, 1888.

PUBLIC HEALTH.

By W. R. CLUNESS, M. A., M. D., Sacramento, Cal.

Mortality.—The deaths registered in 79 town districts of the State during the past month in a population of 727,450, correspond to an annual rate of 17.11 a thousand, the total mortality having been 1,038. One hundred and forty-six deaths resulted from zymotic diseases, giving an annual rate of 2.44. Of these 48 were referred to diphtheria, 9 to scarlet fever, 7 to measles, 2 to small-pox, 28 to typhoid fever, 4 to remittent fever, 24 to cholera-infantum, and 7 to diarrhœa and dysentery. 285 deaths resulted from diseases of the respiratory organs, giving an annual rate of 4.70 a thousand. Of these, 174 are referred to consumption, 72 to pneumonia, 25 to acute bronchitis, and 14 to congestion of the lungs. The average annual death rate from all causes, occurring in the ten largest cities and towns in the State and representing a population of 566,000, was 16.72. The highest death rate for the month, occurring in cities having a population of 10,000 or more inhabitants, was reported from

Pasadena, having been 22.8 a thousand; the lowest was from Stockton, the rate having been 7.20 a thousand.

Scarlet Fever.—A mild form of this disease prevails at present in a number of localities throughout the State, which is liable at any moment to assume graver proportions, for it should be borne in mind that however mild a case of scarlet fever may be, it is capable of reproducing the disease in the most malignant form. This has been so frequently demonstrated that its truth should be constantly impressed upon the attention of families and guardians of children, amongst whom the disease in question has made its appearance. It matters not how or why this malignancy may be so suddenly and unexpectedly developed, but it is frequently of the utmost importance that the fact should be known to all interested. While, however, we are often unable to attribute its malignancy to any known cause, it is undeniable that defective hygiene, especially from illy ventilated and badly drained dwellings, intensifies the infection, and renders cases which would be otherwise benign, of a dangerous type. It should be recollected that the popular idea that scarlet fever is unavoidable is erroneous, for undoubtedly a considerable percentage of the human family escape it altogether. Besides, when its great fatality in infant life as compared with that attendant upon it in later years is taken into consideration, it should induce medical men to establish as rigid quarantine against it as possible. The prompt and complete isolation of the first case should therefore be enforced, and all communication with the susceptible be avoided for at least six weeks. Careful watch should also be maintained for a second case, which should likewise be promptly quarantined; and as the period of incubation is short—usually three or four days—this can generally be accomplished with but little exposure of other children occupying the same dwelling. Those in attendance upon the sick should avoid all communication with the well, and even physicians should adopt all reasonable precaution against conveying the germs from house to house. To this end the cleansing of the hands with soap and water, and subsequently with a 1:1000 bi-chloride solution should be done, inasmuch as they are far more likely to propagate the disease in this than in any other manner. For the disinfection of the room in which the patient had been confined, an ounce and a half of sulphur for each hundred cubic feet of space should be burned in an iron vessel, the fumes generated being confined as closely as possible within the room.

METEOROLOGY.

By J. W. Robertson, B. A., M. D., Assistant Physician to the State Asylum for Insane, Napa, Cal.

Temperature.—During the month of May the temperature was, as usual, mild—not materially differing from that of other years—the mean ranging from 68° in the valley belt to 55° on the coast. The range of temperature was unusually small, the days being cool or cloudy and the nights warm. There was a marked freedom from the hot north winds which occasionally prevail in the valley belt during this month.

Rainfall.—The month was marked by an unusual number of cloudy days. The long dry spell was broken by local showers. On the third there was a well marked storm, coming from the north, and but slightly affecting points south of San Francisco. On the thirteenth, showery weather was followed by a well defined storm, especially along the Southern coast and in the valley belt of Southern California. At Napa, which, next to Santa Cruz, has the largest rainfall, it was .05 less than the average rainfall of the last 10 years. In 1877, 1879 and 1880 there was over an inch, and in 1883 over 5 inches.

California—Tabular Statement for May, 1888.

STATIONS.	Temperature. Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	Rainfall. No. of Days Rain Fell	Total Rainfall	Mean Relative Humidity	Weather. No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Wind. Prevailing Direction.	Furnished by—
Auburn.....Cal.	61.0	86.0	46.0	.....	.....	.....	.....	0.40	.....	.....	.....	.....	S.	Southern Pacific Co.
Colfax..... "	61.2	78.0	47.0	.....	.....	.....	.....	0.17	.....	.....	.....	.....	S.	" " "
Eureka..... "	53.0	71 0	43.6	57.8	49.2	8.6	7	0.76	85.1	4	10	17	N.	Signal Service U.S.A.
Fresno..... "	68.6	96.2	46.1	82.6	53.4	29.2	5	0.56	57.9	21	9	1	NW.	" " "
Keeler..... "	66.5	87.8	40.7	77.2	53.7	23.5	5	0.30	33.9	16	14	1	NW.	" " "
Los Angeles.... "	60.8	83.0	45.0	72.8	52.8	20.0	1	0.05	79.2	5	18	8	W.	" " "
Monterey..... "	60.0	72.0	52.0	.....	.....	.....	.....	0.81	.....	.....	.....	.....	SE.	Southern Pacific Co.
Napa..... . "	57.2	79.0	41.0	65.8	48.6	17.2	4	0.94	.....	13	16	2	S.SW.	Sta. Napa Ins. Asylum
Oakland..... "	57.03	73.0	50.0	63.33	52.33	10.33	5	0.35	84.76	6	17	8	SW&W.	J. B. Trembley, M.D.
Paso Robles.... "	64.0	98.0	44.0	... .	.....	.....	.....	0.28	.....	.....	.....	.....	S.	Southern Pacific Co.
Red Bluff..... "	68.1	95.5	48.4	80.8	48.4	32.4	5	0.51	51.3	16	11	4	S.	Signal Service U.S.A.
Sacramento. ... "	61.8	90.0	45.5	75.1	50.3	24.8	2	0.40	67.9	19	10	2	SW.	" " "
San Diego. ..... "	61.2	70.0	52.0	66.9	56.9	10.0	6	0.22	77.4	3	11	17	NW.	" " "
San Francisco.. "	55.4	81.1	47.4	62.9	59.9	12.0	5	0.38	77.7	5	14	12	W.	" " "
Santa Barbara.. "	57.6	71.0	41.0	64 5	51 7	13.4	....	0.02	.....	11	6	14	W.	Hugh D. Vail.
Santa Cruz .. "	59.3	78.0	48.0	.....	.....	.....	....	1.08	.....	.....	.....	.....	SE.	Southern Pacific Co.
Yuma.....A. T.	76.9	102.0	54.0	91.6	60.4	31.2	0	0.00	37.5	28	3	0	W.	Signal Service U.S.A.

Blank (.....) indicates data missing.

Clear Day—One on which cloudiness is 3 or less on a scale of 10. Fair Day—One on which cloudiness is from 3 to 7.
Cloudy Day—One on which cloudiness is over 7.

REVIEWS AND NOTICES.

ANNUAL METEOROLOGICAL REVIEW AND BRIEF NOTES ON THE RESOURCES OF THE STATE OF CALIFORNIA, FOR THE YEAR 1887. By the Meteorological Department of the State Agricultural Society. Compiled by James A. Barwick, Observer Signal Corps U. S. Army, and Meteorologist to the State Board of Agriculture. Sacramento: State Printing Office.

This volume, which is much larger than the report of 1887, contains a vast amount of information about California. The subject of meteorology receives special prominence, but the agricultural possibilities of the country have been also considered. A number of articles on various subjects by competent authorities are included. The work contains, in a compact form, excellently arranged for comparison and reference, all the available meteorological data regarding this State; and as a source of general information is invaluable. There is, unfortunately, in certain sections of the State, a tendency to regard some particular locality as a meteorological Utopia, to the complete exclusion of any other region. In pursuance of this policy, it has been stated that this volume is one-sided, and that undue prominence has been given to that three-fourths of the State which lies north of Tehachapi. This is an absurdity. The articles descriptive of particular localities are as a rule signed by the writers, while the meteorological data have been furnished by the Signal Service and voluntary observers, and are equally available for refutation.

THE MODERN TREATMENT OF HEADACHES. By Allan McLain Hamilton, M. D. Leisure Library Series. Detroit: Geo. S. Davis. 1888. Paper, 25 cents; cloth, 50 cents.

This modest monograph does not essay to treat exhaustively the complex subject of headaches. It succinctly and clearly extols the best methods of treatment as deduced from the personal experience of a celebrated neurologist. The chapters devoted to anemic and congestive headaches are especially interesting. As a means of differential diagnosis between these two forms of cephalalgia, we have often resorted to the inhalation of nitrite of amyl during an attack. This agent congests the cerebral blood vessels. If the headache be anemic it is assuaged, but intensified on the contrary if congestive. This book well merits the consideration of the practitioner.

DISEASES OF THE OVARIES. By R. Olshausen, M. D., Professor of Obstetrics and Gynecology at the University of Halle. Vol. VIII, Cyclopedia of Obstetrics and Gynecology. New York: Wm. Wood & Co.

The study of the human ovaries possesses an intrinsic interest that has been greatly heightened by the brilliant achievements of modern surgery. At the beginning of the present century these organs presented to the surgical explorer a virgin field, which one begins to feel must soon needs lie fallow. A rich experience has demonstrated the necessity of surgical intervention in certain pathological conditions, its futility in others, and has determined its form and *technique*. What is left to original research? Little, indeed—and much. The propriety of intervention and its mode and the necessity of antisepsis, have been determined for all time. No writ of *habeas corpus* can recall these once burning questions from the realms of positive knowledge. They have been passed on by the courts of last resort, intelligent experience and observation. Little, indeed, is here to be wrested from the infinite unknown; but a host of minor questions confronts the conscientious operator at every turn. When shall I operate? When the tumor is first discovered, or when it first begins

either to impair the health, or to produce serious discomfort, or to threaten life? How can I most certainly and safely obtain absolute asepsis? etc. Here, much is still left, and something, perhaps, will always be left, to original research. Olshausen's work forms no insignificant contribution to the solution of these minor, yet important questions. It is systematic in arrangement, judicial in tone, and is thus admirably adapted to the use of both student and practician. Most of the author's opinions are worthy of approbation—very few of censure. His firm stand in favor of antisepsis is especially gratifying. As there are still those who deny the rotation of the earth, so are there still those who deny the value of antisepsis. Is not the time at hand when, without dogmatism, their opinions may be treated with a smile—a smile tempered with sadness, were it not that their mild lunacy manifests itself more in theory than in practice?

INTUBATION OF THE LARYNX. By F. C. Waxham, M. D., Professor of Otology, Rhinology and Laryngology, College of Physicians and Surgeons of Chicago, etc. Chicago: Charles Truax.

The author of this manual has given a very complete description of this new operation, its history, anatomy of the larynx, the instruments used, with the author's modification of the O'Dwyer tubes, and a statistical table of the cases operated upon by himself and others. His extensive experience, both in hospital and private practice, have enabled him to speak with authority upon the subject. It will be found a useful guide by any one who wishes to study the methods of operating and the necessary instruments for its performance.

BOOKS AND PAMPHLETS RECEIVED.

The Disorders of Menstruation. By Edward W. Jenks, M. D. L.L. D. Professor of Gynecology in the Michigan College of Medicine and Surgery, etc. Physician's Leisure Library Series. Detroit: Geo. S. Davis. Price, 25 cents; cloth, 50 cents.

On Exercise for Prevention and Cure of Deformities. By A. H. P. Leuf, M. D, [Reprinted from the *Medical and Surgical Reporter.*]

Water—its Impurities gathered from the Air and Earth, the Organisms that grow in it, and the Modern Methods of Purification. By C. W. Moore, M. D. [Reprinted from the *Pacific Record of Medicine and Surgery.*]

A Description of the Desiccated Human Remains in the California State Mining Bureau. By Winslow Anderson, M. D. Sacramento: State Printing Office.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At the regular meeting of the Board of Examiners, held June 6th, 1888, the following physicians were granted certificates to practise medicine and surgery in the State:

Gustav C. W. Barkow, San Diego; Coll. of Phys. and Surgs., Ill., Mar. 11, '84.

Charles George Bull, San Francisco; Bellevue Hos. M. Coll., N. Y., Mar. 10, '81.

Ernest Henry Cole, Los Angeles; St. Louis M. Coll., Mo., Mar. 6, '85.

Albert L. Derbyshire, El Cajon; M. Coll. of Indiana, Ind., Feb. 25, '86.
George S. Eveleth, Pasadena; Bellevue Hos. M. Coll., N. Y., Mar. 12, '88.
Clinton Fisher, Los Angeles; M. Dep. State Univ. of Iowa, Keokuk, Ia., Feb. 25, '68.
Harry Newbury Hall, Pasadena; M. Dep. Univ. of Pennsylvania, May 1, '88.
Joseph W. Harris, Los Angeles; Miami M. Coll., O., Mar. 2, '74.
Randolph W. Hill, San Diego; Kentucky School of M., Ky., Mar. 1, '76.
John D. Hudopith, Rosewitch; Winchester M. Coll., Va., Apr. 19, '53.
Enoch Austin Jackman, Roseville; M. Dep. Univ. of Vermont, July 19, '86.
Arthur Louis Kelsey, Pasadena; Jefferson M. Coll., Penn., Apr. 4, '88.
George M. B. Maugh, Santa Barbara; M. Dep. Univ. of Missouri, 1848; St. Louis M. Coll., Mo., Mar. 4, '84.
Henrietta Sanderson Maxson, Fresno; M. Dep. Univ. Michigan, June 3, '85.
Willis H. Maxson, Fresno; M. Dep. Univ. Michigan, June 8, '83.
Thomas Benton McWilliams, Pasadena; Coll. of Phys. and Surgs., Keokuk, Ia., Feb. 23, '71.
John S. Muir, San Francisco; Coll. of Phys. and Surgs. Keokuk, Ia., Feb. 17, '76.
Charles Pratt, Los Angeles; Jefferson M. Coll., Penn., Mar 12, '81.
Thomas Hardy Smith, Pomona; St. Louis M. Coll., Mo., Mar. 8, '82.
James P. Squires, Redlands; M. Dep. Univ. of Buffalo, N. Y., Feb. 26, '51.
Richard A. Urquhart, Los Gatos; M. Dep. Univ. of Virginia, July 2, '74.
Henry Westlake, Los Angeles; Victoria Univ. Canada, May 11, '87.

R. H. PLUMMER, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from May 16th to June 16th, 1888.

1st Lieut. Leonard Wood, Assistant Surgeon, leave of absence extended two months. S. O. No. 114, A. G. O. May 17, 1888.

1st Lieut. W. B. Bannister, Assistant Surgeon, granted leave of absence for two months. S. O. No. 119, A. G. O. May 23, 1888.

Assistant Surgeon A. F. Steigers, now on duty at Alcatraz Island, Cal., will report to the commanding officer Angel Island, Cal., for temporary duty at that post during the absence of Major Robert H. White, Surgeon. S. O. No. 32, Div. Pacific, May 28, 1888.

1st Lieut. E. R. Morris, Assistant Surgeon, granted leave of absence for one month. S. O. No. 61, Dept. Arizona, May 28, 1888.

Major Robert H. White, Surgeon, will report to regimental commander 1st Inf., to accompany headquarters, field, staff, band, and battalion of 1st Inf. to Santa Barbara, Cal., on or about June 15, 1888; to remain until about Sept. 1, 1888. S. O. No. 25, Div. Pacific, May 28, 1888.

Major Wm. E. Waters, Surgeon, granted leave of absence for twenty days, to take effect about June 15, 1888. S. O. No. 64, Dept. Columbia, June 8, 1888.

Official List of Changes in the Medical Corps. U S. Navy (Pacific Station), from May 20th to June 20th, 1888.

Surgeon G. W. Woods, ordered from Navy Yard, Mare Island, Cal., to report for examination at Washington, D. C., June 21st, in anticipation of his promotion to Medical Inspector on the 19th of July.

Sacramento Medical Times.

VOL. II. AUGUST, 1888. No. 8.

A CLINICAL LECTURE,

By PROF. H. NOTHNAGEL, Vienna.

Syphilis of the Brain.

Gentlemen: The patient whom I now bring before you is aged 29 years, and states that he acquired syphilis three years ago. Some time after the syphilitic infection, he observed that his vision began to diminish, and he was seized with severe headache. After the prolonged use of iodine waters, the power of sight improved, and the headache at the same time disappeared. In August, 1887, the headache returned, and was exceedingly severe; at the same time the patient was also affected with weakness in the right leg and arm. The symptoms thus varied very frequently; the present condition of the patient, viz: paralysis of the left arm and leg, set in in November of last year. I have already, on previous occasions, directed your attention to the fact that such a frequent change in the symptoms led us, with a strong probability of being correct, to suggest that we had to deal with a syphilitic affection of the central nerve system.

On examination, we find, as you are aware, a motor weakness of the right leg and arm. On deep inspiration, the lower portion of the thorax expands more freely on the left side that on the right; hence, there is here a slight degree of paresis of the muscles of the right side of the chest. As to the face, you may remark that when the patient is directed to show his teeth, the right angle of the mouth is slower in its movement than the left; the upper branches of the facial nerve are less affected, and the paresis is referred to those filaments which supply the muscles of the mouth. This kind of paralysis, as you are aware, points to a central seat of the cause. When the patient laughs involuntarily, we observe that the right side shows almost the same contractions as the left. I wish to emphasize this fact, as I had told you on an earlier occasion, that there were paralyses of the facial nerve in which the paralyzed muscles, when stimulated by psychical influence, showed the same contractions as the healthy ones. I had also told you that there were paralyses of the facial nerve in which the paralysis was observed on voluntary movements, and absent in the case of involuntary function. I had directed your attention to the fact that, at least in my opinion, this condition permitted us to draw a certain conclusion with reference to the cause of the disease. In my opinion, the nerve fibres which lead from the thalamus opticus through the corona radiata to the cerebral cortex, must be quite intact in such a case; on the other hand, the connection between the lateral

funiculi pyramidales and the cerebral cortex must be interrupted. Our observations do not admit of any other conclusion, which was recently confirmed by the experiments of Bechtereff. These experiments seem to prove that the optic thalamus dominates the movements which are due to a psychical influence. In our case, we must, therefore, conclude that the seat of the lesion should be sought for in the lateral funiculi pyramidales, and that the connection between the optic thalamus and the cerebral cortex is quite intact.

The speech of our patient is somewhat slow, but in any case there is no dysarthria. There is no paralysis of the motor part of the fifth nerve. The left eye cannot be turned outwards, hence we have to deal with a paralysis of the left abducens nerve. This is a very remarkable symptom, as the extremities and the facial nerve are paralyzed on the right side. As to the color of the extremity, we remark that the right hand is darker and more livid than the left; at the beginning of the disease it was also warmer than the left hand; we thus infer a slight degree of vasomotor disturbance. Examination of the sensibility shows that punctures on the left side of the face are not felt; this is more distinctly pronounced towards the front; the difference of sensibility reaches as far as the neck. This implies the presence of anesthesia of the fifth nerve, again on the left side. The taste is impaired on the left side, whereas the sense of smell shows no difference. The power of sight is impaired on the left side, owing to the presence of pannus. The rest of the organs are normal. The urine is yellow in color, and slightly cloudy, but contains no albumin.

When we have to deal with cerebral affections, we must first answer two questions, viz: What is the morbid process, and where is the seat of the affection? I wish first to answer the question regarding the seat of the morbid process. In the common cases of cerebral hemiplegia we most frequently find motor paralysis of the upper and lower extremities, as well as a paralysis of that part of the facial nerve which supplies the mouth, and the hypoglossal nerve; besides this, slight sensory and vasomotor paralysis may be present. There is no doubt that in our patient we have to deal with an analogous case, but we also observe here two very remarkable symptoms. First, the abducens nerve, in our case, is also affected; among 360 cases of common hemiplegia, we meet with 330 in which the eye muscles are not affected. This is explained by the seat of the disease; the common cerebral hemiplegia is due to a lesion in the anterior part of the cerebrum, whereas the nucleus of the eye-muscle-nerves are situated much deeper in the grey matter of the third ventricle. The participation of the abducens nerve, in our case, therefore, points to a particular seat of the cause of the affection. We not only have to exclude the optic thalamus, owing to the special character of the paralysis of the facial nerve, but we must even exclude the anterior part of the brain; the seat of the affection must be sought for in the posterior cranial fossa, or in the substance of the pons varoli.

What is more strange in our case is the fact that the abducens nerve is not affected on the same side on which the paralysis of the extremities and the facial nerve is observed, but on the opposite one. I had also told

you that in the case of common cerebral paralyses, the sensibility was either not at all impaired, or only to a slight degree. In our case, however, the fifth nerve is also affected, which is an unusually rare occurrence in cerebral hemiplegia; the more striking symptom is that the fifth nerve is anesthetic on the left side. This was first exactly studied by Gubler, of Paris, who has described it under the name of "alternate paralysis," or, as I have translated it into German, *die wechselständize Lahmung*. With reference to the facial nerve and the extremities, this is explained by the following anatomical conditions. The decussation of the facial nerves in the cerebrum lies higher than that of the nerves for the extremities—*i. e.*, in the upper part of the pons varoli. Now, when a cerebral affection has its seat in the upper part of the pons, the nerves for the extremities and the facial nerves will be affected before their decussation; hence, there will be no alternate paralysis in such a case. When, however, the lesion is situated on the inferior part of the pons, beneath the decussation of the facial nerves, the nerves for the extremities will be affected for the decussated part, and the facial nerve for the same side. In this way the alternate paralysis is to be explained. In such a case we may positively ascertain the seat of the affection; the cause of the disease is situated in the posterior part of the pedunculus cerebri, in that part where it emerges from the pons varoli. Alternate paralayses have also been observed with reference to the motor oculi nerve, the abducens nerve, the fifth nerve and the nerves for the extremities.

If we now try to answer the question as to where the seat of the affection is to be sought in our case, we have either to suppose that two foci exist, or that the focus must be situated at a point where the fifth nerve and the abducens nerve of the one side, and the facial nerve and the nerves for the extremities of the other side, are simultaneously affected. This could be in the region of the pons varoli, as such paralayses have been observed, and furthermore, we would have to localize the affection in the upper part of the pons. On the other hand, we may bear in mind a diseased process which has an intracerebral as well as a basal position. It is difficult to say which of these two suppositions is correct. There is an old diagnostic maxim which says when, in the case of an affection, there exist various symptoms which point to different causes, and all these symptoms may be reduced to one single cause without overlooking established scientific facts, it is always more correct to summarize the symptoms, and to explain them by the suggestion of one cause. I must, however, remark that there are also cases in which we may admit the presence of two foci with certainty. In accordance with the foregoing principle, I am inclined to believe in one focus, viz: in the upper part of the pons varoli.

An equally interesting question is that respecting the cause of the paralysis. I ask you to bear in mind the following principle: when a person under the age of 40 becomes hemiplegic, we think of a certain number of causes, and exclude a certain number. We exclude a common hemorrhage, which is usually observed in advanced life, and is due to a disease of the blood vessels and to thrombotic malacia, to thrombosis as the result of atheroma of the blood vessels. When, however, a young

person becomes suddenly hemiplegic, we must, in the first place, think of nephritis, attended with cerebral hemorrhage, for in young people we not infrequently meet with hemorrhage as the result of contracted kidney. In the second place, we think of embolus, when the patient is affected with cardiac failure, or when another condition which gives origin to embolus is present. In our case, we can exclude both of these, as the disease has gradually developed, and as we find no nephritis or cardiac affection. When the paralysis develops slowly, as in our case, we first think of a syphilitic affection of the cerebrum; and the second possibility would be the presence of tumors in the brain. I wish to add now that in the case of syphilis of the brain or cerebral tumors, the paralysis may also suddenly set in; hence we must not exclude the presence of these diseases when the paralysis supervenes quite suddenly. In our case we have, in the first place, to consider syphilis, owing to the slow development of the paralysis. We have also learned from the history of the disease that the symptoms have changed very frequently; the patient was at certain periods affected with paralysis, and on other occasions with headache; he also lost the power of sight; all these symptoms later on improved. This change of the symptoms points to the presence of a syphilitic affection of the brain. In the case of cerebral tumours, such changes in the symptoms do occur, but this is not the rule; they usually show a gradual and constant progress.

We have thus arrived at the discussion of the question bearing on cerbral syphilis, the anatomical conditions of which may be quite different. We know that syphilitic disease may have its seat in the bones, and that gummata or exostoses may be present at the base of the skull; these may exert a pressure on certain nerves, and thus give rise to cerebral symptoms. In another class of cases, we meet with gummata, which develop in the substance of the brain, the so-called syphilomata of the brain. These syphilomata may have a different form, and there are cases in which the gummata are rather solid, and have, then, a similar effect to that of tumors. On the other hand, there are also quite soft gummata, which, when not examined by the microscope, look like syphilitic encephalitis. In a third category of cases, syphilis gives rise to an inflammation of the meninges—the so-called meningitis sclerotica syphilitica. Sclerotic meningitis may have three causes, viz: alcoholism, tuberculosis or syphilis. There are also traumatic forms of sclerotic syphilis, and such a condition is, moreover, observed in lunatics, but not frequently. Heubner has directed our attention to another form of cerebral syphilis. He has proved the existence of affections of the cerebral arteries, the "arteritis syphilitica cerebralis."

I do not wish to dwell upon the anatomical and histological conditions in such cases, and only ask you to bear in mind the following facts: You will easily understand that it is quite immaterial for us to know the cause which has given origin to the development of the thrombosis in such a case. In each case where thrombosis develops in a blood vessel, anemia and ischemia must take place in the region supplied by it, giving rise to necrotic malacia. We, indeed, observe that in the case of syphilitic disease of the blood-vessels, necrotic malacia develops very frequently.

When we take into account all those forms of disease in the brain which are produced by syphilis, we obtain a great number of varying symptoms, and it is due to Wunderlich to have first directed attention to the fact that the constant feature in such cases is the change of the symptoms. I have told you that thrombosis develops gradually; this condition need not be attended by any severe symptoms, when sufficient collateral circulation has been established. When, however, the occlusion of the blood-vessel occurs suddenly, syncopal and epileptic attacks, hemiplegia, disturbances of sensibility, etc., may supervene. Where large arteries are obstructed, and where no collateral circulation takes place, a permanent destruction of the territory which is supplied by the artery, without the possibility of restitution, ensues. You will thus understand that in such cases we may observe quite varying symptoms with reference to motion and sensation; we also observe disturbances, principally psychical, of the most different functions.

The change of the symptoms in our patient makes us first think of arteritis syphilitica. Such an arteritis sometimes gives rise to obstruction of the blood-vessels in some parts, which results in transitory ischemia; for when a collateral circulation has been established, the ischemia disappears. In the case of our patient, obstruction must be present to a high degree, as his condition continues for a rather long time. The question arises as to whether syphilitic meningitis is not also present in our case. We should have to admit such a condition, provided that we suppose there is a basal cause besides the cerebral one. We cannot, however, arrive at any sure conclusion in this respect; we can only with certainty diagnose the presence of syphilitic arteritis.

Now, as to the prognosis: I must state that among all the diseases of the brain those of syphilitic origin give proportionately the most favorable prognosis. Of all cerebral tumors, the syphilitic ones are also the most amenable to treatment. All the syphilitic cerebral affections are not, however, attended with a complete restitution. I remember, myself, several cases in which the most severe forms of hemiplegia and contractures have developed as the result of syphilis. I wish to add the following particulars: You know that we classify the diseases of the nerve system among the so-called late forms of syphilis. A man may become affected with a cerebral syphilitic disease, having acquired syphilis from ten to twenty years previously. On the other hand it may happen that the cerebral symptoms supervene in one year after the date of the infection. I am unable to tell you the reason why the symptoms on one occasion come on at an early period, and why they are observed at a late period in other instances. The development of cerebral symptons usually takes from three to five years after the date of infection. In the case of our patient, three and a half years had elapsed before he became affected.

As to therapeutics, we have to follow an anti-syphilitic course of treatment. The precise method of such a treatment depends on the standpoint which you occupy in syphilo-therapy. I, for one, am of the opinion that we ought to use mercury, and in our case I hold that a mercurial treatment is the best one. In the case of tardy cerebral syphilis, I think that inunctions with mercurial ointment constitute the most reliable and

the best procedure. I only ask you to bear in mind that this treatment must be very careful, thorough and energetic. You will have to use from one and a half to two grammes daily of the blue ointment. As to the particulars of syphilo-therapy, you will become acquainted with them in the clinic for syphilis, and I do not wish to dwell upon them here. I will only remark that it must be carried out for a long time. You will administer thirty inunctions, then discontinue the treatment for from five to six weeks; then another series of inunctions, and so on. In such a course of treatment you should watch the condition of the gums. You will also give daily from one and a half to two grammes. of the iodide of potassium or the iodide of sodium internally, for many weeks. When you wish to send the patient to a health resort you will, of course, select those mineral waters which contain iodide or sulphuretted waters; and besides this you will follow the usual course of treatment of cerebral affections, such as hydropathic and electric procedures and massage.

SURGICAL NOTES AND MEMORANDA.

By T. W. Huntington, B. A., M. D., Surgeon Southern Pacific Co's Hospital, Sacramento, Cal.

The highest interests of science and of common humanity alike demand that, from time to time, the methods employed, the work done and results attained in institutions devoted to the maintenance of the afflicted shall be offered to the medical profession in the form of a scrupulously faithful report. The published records of hospitals, whether military, charitable or private, afford a vast aggregation of facts, data and statistics, whence is derived an important part of the exact as well as theoretical knowledge appertaining to medicine and surgery. Private practitioners, as a rule, find little time for systematic annotation, while the delicacy of the relation existing between themselves and their *clientèle*, to say nothing of the financial obstacle, renders it often-times improper to entrust such a task to an amanuensis. The consequence is that matters of extraordinary interest are wholly lost or imperfectly reported from the memory of the attendant. Moreover it is unquestionably a fact that, when surgery alone is considered, the few cases, which come at long intervals to most general practitioners, partake largely of the nature of exceptional incidents, unlooked for emergencies, or possibly dreaded ordeals, while into the lives of few of us does the practice of systematic surgery enter, as even an approximation to an experience.

Hence it is apparent that a grave responsibility rests upon the favored minority who are brought in daily, almost hourly, contact with that unfortunate class who require an exercise of surgical knowledge with its correlatives, manipulative skill and expertness.

The allusion here is to the debt owed by the hospital surgeon to those who are isolated by distance from the great centres of education, or who, by circumstances, are denied access to the fields whence an experience may be acquired. Nor is this debt wholly cancelled by a tale of wonderful achievement or phenomenal success. Of greater moment to all concerned, is the policy which affects the commonplace, oft-recurring events of daily routine, and serves to revise and readjust rules and maxims to accord with increasing knowledge. There can be found no more appropriate occasion than the present for the discharge of at least a small part of the obligation imposed upon me as surgeon in charge of the Railroad Hospital in this city. Very briefly, and in a somewhat disjointed manner, I shall allude to certain special methods in wound treatment that have proven practicable and efficient. Before entering upon this task specifically, permit me to engage your attention with a few general considerations which may be of interest.

During the past four and a half years, over which period my notes extend, ether has been administered as an anesthetic two hundred and sixty-five times successfully. In no instance has it given rise to serious apprehension regarding the patient's condition, nor have efforts at resuscitation ever become necessary. Delay in securing a perfect condition of anesthesia has not been infrequent, but this is in the main, attributable to imperfect apparatus for its administration rather than to any inherent fault of the agent. The plan of administration in vogue during most of this period has been by the vapor method of Müller. A few administrations by means of Parkinson's modification of Ormsby's inhaler have given results wholly satisfactory in point of expenditure of ether, economy of time and safety to the patient. In future we shall profit by experience and employ the "Ormsby inhaler."

Since January 1st, 1884, when antiseptic wound treatment was introduced in this institution, major amputations have been done upon thirteen individuals. Of these, three submitted to amputation of the thigh, four of one leg, two of both legs, one of the foot and one leg, (the latter being a reamputation) one of the foot, and two of the forearm. Upon the thirteen persons, eighteen separate operations were performed, sixteen having been done in the hospital and two before entrance. They are classified as follows: Thigh amputations, 3; leg (including reamputations), 11; foot, 2; forearm, 2. Of the eleven leg cases, three were reamputations. In two of these the primary operation was done before the patient was brought to the hospital, and one followed an attempt to save a

portion of the foot by Pirogoff's method. Of the double leg amputations, one was synchronous, the other non-synchronous, and in the latter case the patient underwent a reamputation of one leg twenty days after the primary operation.

The history of the three reamputations is of interest. In one case it was made necessary by necrosis of the tibia and a painful stump; in another by necrosis of the flaps, probably due to the fact that the seat of the primary operation was in too close proximity to the injury. The third case resulted from an unsuccessful attempt to save a portion of the foot. Of the thirteen patients, one (a thigh case) died an hour after the operation from loss of blood prior to the operation, and shock. Another, a leg amputation, died from a fracture of the skull after the amputation wound had healed perfectly. Eliminating the case of immediate death from shock, and we have seventeen major amputations done upon twelve individuals without a fatality as the result of the operation.

Open wound treatment has undergone few, and in the main, unimportant changes since my report upon that subject three years ago. A more complete knowledge of what can be achieved by antisepsis, a knowledge which is the outgrowth of a daily experience with modified Listerism in many cases, has fully justified the opinion then held, that the day of painful, suppurating, malodorous wounds is passed. Within the jurisdiction of the surgeon, local or constitutional septic infection is obsolete. In operative wounds, union by first intention is the rule. Compound fractures, even when complicated by extensive laceration of adjacent tissues, go on to rapid recovery. Joint wounds heal kindly, and oftentimes without permanent impairment of function, and in many of the formidable injuries resulting from railway crushes, where the patient survives the primary shock, we find an immunity from suffering and from loss of limbs that would formerly have seemed miraculous. Corrosive sublimate solution is the standard irrigation fluid, and dry sublimated gauze the chief factor in wound covering. Iodoform, through its inhibitory action upon germ development, has proven a most efficient adjunct in wound dressing, and is employed more extensively than in former years. The use of Mackintosh as an outer protective has been almost wholly abandoned. While it is certain that its employment adds somewhat to the patient's safety where a permanent dressing is desirable, yet its advantages are measurably offset by the fact that beneath such an envelope the dressings soon become saturated

with moisture, causing objectionable maceration of tissues and delay in repair.

An extensive use of catgut for ligatures has in every instance given perfect satisfaction. The market is now supplied with several excellent varieties of this material, so that there exists no further apology for the employment of the silk ligature with dependent ends.

Silver wire maintains its reputation as a suture material where considerable tensile strength is required. It is, however, largely supplanted by horse-hair, when lighter and more delicate work is involved. It has proven non-irritating in the extreme, and easily removed when its usefulness has expired. But a more important consideration in its favor is the almost imperceptible trace left behind as its heirloom to the patient.

A most efficient and convenient device is the cotton and collodion dressing for small wounds, especially when conspicuously located, or when so situated that a bandage is adjusted with difficulty. Its method of application is very simple. The wound is treated as usual in the earlier steps. The surface having been dusted lightly with iodoform, a bit of absorbent cotton, sufficient to cover the wound and adjacent tissues, is neatly applied. The attenuated edges of the cotton are then cemented to the integument by a free application of collodion. Later the entire surface of the dressing may be painted freely with the same agent. The result is a neat, impervious, antiseptic dressing.

The very large number of severe sprains, subluxations, extensive contusions, and subcutaneous lesions, in general due to violence, which are admitted to the hospital yearly, renders the procedure in such cases one of unusual importance. Inflammatory action, so apt to follow such lesions, is in results most disastrous, and permanent impairment or deformity are its frequent accompaniments. A somewhat extended trial of various remedies in this class of cases has led to the belief that the application of a hot lotion, composed of a strong solution of acetate of lead and a varying quantity of laudanum, is by far the most effective method of procedure in such emergencies. The strongly astringent action of the lead upon the engorged tissues is a stimulant to the absorbents. Under its influence extensive hematoma are rapidly disposed of, tension is relieved, and disastrous secondary inflammation prevented.

The treatment of hemorrhoids is a subject worthy of more attention than the brief mention which the scope of this paper admits.

Cases of long standing, presenting masses of fibrous tissue and involving extensive prolapse of mucous membrane with annoying erosions, ulcerations and hemorrhages are treated invariably by the continuous ligature, a method ingeniously devised by Guérin, and to which attention has been often called by Dr. H. W. Nelson, of this city. By this plan the entire margin of the anus, or such portion of it as is studded with pile tumors, is engaged in the ligature. No intermediate tissue remains to form a source of immediate or subsequent annoyance, and when repair is completed, recurrence of the former condition seems well-nigh impossible. In one instance a patient who declined to follow his instructions died from septic infection, incident to the operation. Aside from this, in a very considerable number of cases, the result has invariably proven a radical cure.

Hydrocele has been treated variously. The use of pure carbolic acid as an injection has proven satisfactory in a fair proportion of cases, but it is by no means infallible. After its employment, recovery is the rule ; yet occasionally there have been recurrences. The same remark is equally true of the iodine treatment. When injections have proven fruitless, a small incision and thorough drainage by rubber tubing, under a protective covering, has in several cases accomplished the desired end. In a recent case, after repeated and unsuccessful resort to injections and drainage, a fortunate termination was finally reached through free incision and excision of about one-half of the tunica vaginalis.

Among the latest achievements of antiseptic surgery is a successful, almost painless and rational plan for the treatment of extensive burns. Hitherto this class of cases have been contemplated by surgeons with little else than a feeling of self-reproach; and words cannot portray the horrors attendant upon the old *régime* of lotions, oils and salves. Attention was first called to the dry antiseptic method of treating burns by Prof. Mosetig, early in 1887, although a modification of the same plan had been in vogue in this institution for some months before Prof. Mosetig's announcement. The affected area is thoroughly cleansed with one of the non-irritating antiseptic fluids, preferably a solution of boracic acid. It is then dusted lightly with iodoform, or better with a powder composed of equal parts of iodoform and subnitrate of bismuth ; over this is placed several layers of iodoform gauze. The dressing is completed by a thick layer of absorbent cotton, held in place by an ordinary roller-bandage The local anesthetic effect of the iodoform rapidly reduces pain to a minimum

and nervous shock is correspondingly lessened. Integumentary sloughs are preserved and rendered innocuous. Reparative processes, unimpeded by septic infection, are greatly hastened and the resulting cicatrix is smoother, more elastic, and less offensive to the eye than in cases differently treated.

The matter of sponge-grafting naturally finds a place in this connection, as by a resort to it the healing process in large denuded surfaces succeeding burns, as also in slow-healing, indolent ulcers, from whatever cause, is greatly expedited. Thinly shaven flakes of fine sponge, rendered perfectly aseptic by impregnation with iodoform, and planted upon a clean granulating surface, rapidly become firmly attached and are interwoven with organic material. Each graft forms a nucleus from whence are projected filaments of cicatricial tissue to promote and hasten general repair. As compared with skin-grafting, aside from the fact that it is more easy of accomplishment, the chief advantage in the use of the sponge is that the newly-formed tissue resulting from the latter seems to possess a far higher power of resistance, and correspondingly greater permanence than from the former. What ultimately becomes of the original material of the graft is an interesting query, and one for which only an unsatisfactory reply can be suggested at this time. Frequently, when repair under this method is quite perfect, and the part in question is nicely closed in by a firm covering, the surface is found studded with small elevated tufts, whose framework is sponge fibre. If the top of one of these be trimmed off, a freely-bleeding base remains. A few days later the remaining fibre has entirely disappeared, perhaps by absorption or possibly by being incorporated with the cicatrix.

A few months since I called the attention of this society to the fact that the margins of cavities or excavations resulting from circumscribed inflammatory processes, such as carbuncles, glandular abscesses and buboes, can be approximated by deep sutures and made to unite firmly as against the old idea that we must wait patiently until the tedious process of healing by granulation has done its work. Success in this direction can be hoped for only after the elimination of all necrosed tissue and the attainment of an aseptic condition, and in case an infiltrated gland lies within the field of operation extirpation will greatly enhance the probability of a fortunate result.

The following cases have been selected as illustrating the methods that I have described.

Case I.—Wm. H——, a switchman, aged 21, June 7, 1888, at 9 P. M., walked off the front end of a moving car, falling under the wheels. Both wheels of one truck passed obliquely across both thighs, from just above left knee to a point near Poupart's ligament of right thigh. He was brought to Sacramento from Lathrop, where the accident occurred, arriving at 1 o'clock A. M. in a state of profound shock. When placed upon the operating table it was found that he had sustained the following injuries: 1. A simple comminuted fracture of left thigh, the comminution extending over about four inches of the femur; adjacent soft parts greatly contused and skin distended. 2. An extensive crush and laceration of right thigh; perineum and one-half of scrotum occupied by hematoma. 3 A compound comminuted fracture of right tibia and fibula, with great displacement. The patient was seen with me by Dr. M. Gardner, and a few hours later by Dr. W. R. Cluness, all agreeing in an unfavorable prognosis. Special attention was paid to stimulating and nourishing patient, who was left upon a mattress in the operating room until 5 o'clock of the 8th. Open wounds had previously been dressed. At this time reaction had set in to a slight extent and the patient was transferred to a ward cot. Efforts at antisepsis were carefully persisted in. The fractures were supported at first only by sand-bags. In a few days, however, the fractures were dressed in the usual manner. For the first two and a half days the patient vomited persistently. Since that time the case has progressed favorably. The right thigh is drained by two rubber tubes, two and four inches long. The scrotal clot remains, but is giving no discomfort. To-day, eighteen days from the injury, the young man bids fair to recover, with two useful, if not perfect, legs.

Case II.—F. R. D——, Jr., age 14 years, when three years of age sustained a deep and extensive burn, involving the left shoulder and arm nearly to elbow; left side of chest wall and in left axilla the injury was very deep. The process of repair was very slow. At the end of about one year the patient was well, with a broad cicatrical web confining the arm securely to the side and preventing elevation of the elbow higher than to a horizontal. It can be readily understood that the functions of the arm were thereby greatly impaired, and the young man correspondingly crippled. May 22d, 1887, under ether, I cut across the band of cicatrical tissue, and finding little if any relief from this step, proceeded, by careful dissection, to loosen up the deep mass of fibrous bands that filled completely the axillary space. The arm and shoulder were thereby freed from attachments, and all movements were possible. The wound was closed to the greatest possible extent by sutures, but a broad exposed surface remained in the axillary space. The sutured portion of the wound united by first intention, but the deep axillary ulcer repaired with provoking slowness. Month after month this was dressed *secundum artem*, and nearly every device known to the healing art was exhausted

in the effort to induce repair. Skin-grafting failed utterly. Stimulating applications gave no encouragement, and the matter of a plastic operation was seriously discussed. In February of the present year, sponge grafts were planted in the ulcer, and from that time repair was relatively rapid. Newly formed tissue was of a permanent character. Where formerly there had been a tendency toward breaking down of the cicatrix, this was no longer noticed. The case was formally discharged June 2d, 1888, though recovery had been practically perfect for a month prior to that date. The result, so far as the functions of the arm are concerned, is perfect. When both arms are elevated vertically the hands and finger-tips meet; and in this position there is no undue tension upon the cicatrix

Case III.—F. D——, laborer, aged 24. On May 2d, 1888, left leg was caught beneath a car-wheel. Entered hospital three days later, when he was found to have sustained a deep lacerated wound on inner aspect of leg, at the middle third; also a severe contusion of the left ankle, over which the car-wheel passed. Over both maleoli were extensive lacerations, and the foot and ankle were greatly distended by extravasated blood. The earlier treatment was by the ordinary antiseptic irrigation and dressing, which were continued until the end of the second week, when several masses of necrosed integument and muscular tissue were removed. On May 26th the resulting denuded surfaces were thickly studded by thin flakes of carefully prepared sponge. A cavity in the wound of the calf of leg was filled with three pieces of sponge the size of almond meats. June 14, 1888—Since last report the case has progressed rapidly. Nearly all the grafts remain, and many are thoroughly imbedded in the resulting cicatrix. The cavity is obliterated.

426 J street.

NEW INSTRUMENTS IN RHINOLOGY AND OPHTHALMOLOGY.

By A. P. Whittell, M. D., San Francisco, Cal.

The use of sprays as a means of applying medication to the naso-pharyngeal and laryngeal mucous membrane has become so universally adopted, to the exclusion of the unclean brush and swab, that any improvement in the means of producing the spray will meet with ready approval by the many using them. One of the most serious faults with the spray tubes commonly in use is the unevenness of the spray atoms, but worse still is the dropping of the liquid from the end of the tube, which periodically accumulates to a large drop just beneath the apex of the spray cone, and which, when using a post-nasal or laryngeal tube, allows the drop to fall

exactly through the open epiglottis into the larynx, to the great distress of the patient and annoyance of the operator. I have devised a simple means of overcoming this, as well as to improve the character of the spray, and henceforth spray tubes made according to the method here described will never have this objectionable feature.

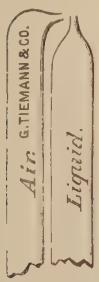


Fig 1.

A spray tube consists essentially of a tube, continuous with a reservoir containing the indicated fluid, drawn to a fine open point, and a tube for conveying air under pressure also drawn to an open point, the latter placed exactly at right angles to and within about a fifteenth of an inch from the former in the relative position shown in Fig. 1. The pointed open ends of the tubes are usually both cut off square, and to this is due the accumulation of drops at that end. By *grooving the liquid-carrying tube* at the point, *in the precise direction of the air blast* as it leaves the air tube, the formation of drops will be entirely prevented and the spray will be greatly improved in evenness and quality. The grooving of the end of the tube is shown in Fig. 2, and beside it the ordinary square cut end. The elevated sides of the grooved point form a channel whose walls confine the liquid as it emerges from the tube and exposes it all to the full force of the air blast.

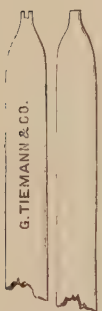


Fig 2.

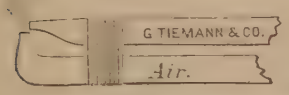
Fig. 3 illustrates a complete spray tube of the form I have adopted, which, in addition to the advantage of the grooved point above described, has the reservoir a little below the level of the point of discharge, thus obviating the flow of the liquid through the tube by the mere force of gravity. They are preferably made of glass, on account of transparency, ease of cleaning, and when it is

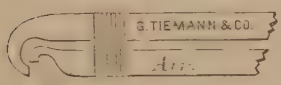
Fig 3, ½ Size.

required for spraying a substance (like vaseline) which requires heat to liquefy it, it may be held in hot water or heated over a spirit lamp. Any physician, with a little practice, can make his

own spray tubes, the only requisites being some glass tubing one-eighth inch internal calibre, a bunsen gas flame or spirit lamp and some fine copper or silver wire for binding the two tubes together. The grooving at the point is made with a jeweler's fine ratchet file, well wet with water. When adjusting the points, an operation which requires some patience and often many changes, the tubes may be temporarily held together by small rubber bands cut from rubber tubing, but when finished are tightly bound together by a dozen turns of the wire at the two places shown in the illustration.

For the guidance of those wishing to make their own spray tubes, the relation of the tube points in the three principal directions required is here shown; *i. e.*, upward, downward, and forward. Any angle may be obtained by modifying the bend of the points. The air point, or nozzle, should always be one-fourth to one-third larger internal diameter (at the extreme tip) than the nozzle for the liquid. For a fine spray the opening at the point of the liquid tube should be $\frac{2}{100}$ inch diameter; for a very course spray $\frac{4}{100}$ inch, and the air pipe proportionate. These measurements are for an air prsesure of from five pounds to twenty-five pounds to the square inch, or for the ordinary hand or foot bulbs.





The accompanying illustration of a stiff rubber bulb 1½ ounce capacity, with a curved glass tube 2½ inches long, having a nozzle of $\frac{1}{25}$ inch diameter, will be found extremely useful in the treatment of affections of the conjunctiva for the washing off after applying copper-sulphate, silver-nitrate, etc. It has been the general custom to use a camel's-hair brush, repeatedly dipped in water and passed over the everted lids to wash off the excess of the remedy used or check its effect. This may be much more easily and perfectly accomplished by the use of the above described instrument filled with tepid water, which escaping slowly through the small outlet, with much or little force according to the pressure on the bulb, produces a constant stream, which may be gently played over all parts of

the everted lids, washing them more thoroughly and gently than can be done with a brush and with much less discomfort to the patient. It should be held in the position here shown. The same bulb is also extremely useful as an ear syringe for the daily washings required in the treatment of purulent otitis. With the left hand raising and drawing the pinna backward, the other holding the bulb (in the position shown in the illustration) the point of the tube is inserted in the meatus against the upper wall. By a sharp and sustained pressure of the bulb the ear may be ordinarily thoroughly cleaned with from two to four drachms of water. By having two bulbs and allowing one to fill while the other is being used a saving of time is effected.

235 Post street.

The instrument here shown is an ordinary watchmaker's three-inch eye-glass or lens, with a spring attachment for holding it in place over the operator's eye, the spring being merely passed around the head. It is admirably adapted to finding foreign bodies imbedded in the cornea and fragments of lens, iris or capsule in the anterior chamber, and leaves the operator's two hands free from holding a lens and instrument when removing them.*

ABSTRACT OF A PAPER ON MYXOMA OF THE CHORION OR VESICULAR MOLE.

By Thos. More Madden, M. D., Obstetric Physician to the Mater Misericordia Hospital, Dublin.

Read before the Section of Obstetrics of the Royal Academy of Medicine in Ireland.

Dr. More Madden read a paper on myxoma of the chorionic villi, or vesicular mole, as a practical contribution to the study of the still obscure pathology of embryonic death in the uterus. Having first described some cases of myxoma of the placental chorionic villi recently met with in his hospital practice, the writer proceeded to point out the general importance of placental disease as a most frequent cause of intrauterine death and abortion. It would be superfluous in this abstract to dwell on the importance of

* These instruments can be obtained from Geo. Tiemann & Co.

this still neglected field of investigation, or to do more than observe that being, as it is, the sole medium of vital communication between the fetus *in utero* and the mother, any deviation from the normal condition of the placenta by which its development may be arrested and its physiological action impaired or perverted must be of serious consequence either to mother or child, or to both. Amongst the diseases of this organ affecting the mother as well as the child are inflammations of the placenta, especially chronic or subacute placentitis, leading to morbid adhesions between the afterbirth and uterus, and occasionally giving rise to the two most serious complications of parturition—viz.: *post-partum* hemorrhage and inversion of the uterus. Another placental disease of no less importance to the mother than to the child is congestion, sometimes resulting in hemorrhage or placental apoplexy; whilst amongst the placental diseases which chiefly affect the fetus by impairing or destroying the structural integrity of this organ are edema, atrophy, and hypertrophy of the afterbirth, and the various forms of degeneration—fatty and calcareous; and, above all, that which was met with in this case—viz.: myxoma or cystic degeneration of the placenta, or chorionic villi. In his own practice he had now met with six cases of this disease, the infrequency of which appears from the following table:

Authority.	Cases admitted into the Rotunda Hospital.	Case of Hydatidinous Disease reported.
Dr. Collins, - - - -	16,654	—
Drs. Hardy and M'Clintock, -	6,634	1
Drs. Sinclair and Johnston, -	13,748	4

Thus it appears that in 31,036 cases admitted into the Lying-in Hospital there were only five instances of hydatidiform mole recorded, being in the proportion of 1 in 6,207 cases.

Vesicular disease of the placenta consists in myxomatous degeneration and abnormal development of the placental chorionic villi, either following or producing the death of the fetus. In the "Dublin Obstetrical Transactions" Dr. More Madden had already related some cases of this kind. In most of these the hydatidiform mass was expelled from the uterus in the fifth month of pregnancy. The symptoms of this disease can at first hardly be distinguished from those of ordinary pregnancy. If, however, in addition to the signs that usually denote the death of the fetus, the patient experiences occasional gushes of water together with slight hemorrhages from the uterus, lasting for a short time and recurring at irregular intervals, we may suspect the existence of vesicular disease in the placenta of a blighted fetus. The expulsion of these

growths from the uterus is generally attended with severe hemorrhage. With regard to their origin, it would be useless again to review the countless theories that have been put forward at different times. For his own part Dr. More Madden still adhered to the views he published several years ago, that in the vast majority of cases those growths originate in cystic degeneration of the chorion villi of a blighted ovum; but at the same time he also believed, although his opinion had been controverted by others, that vesicular growths, apparently similar to those resulting from chorionic disease, may in some exceptional cases also possibly be found *in utero* under circumstances that preclude their origin in embryonic disease. And in such cases Dr. More Madden holds that they probably originatd in the ovary of an unimpregnated female from abnormal nutrition and perverted or monstrous development of a graafian vesicle, the ovum, when expelled into the uterus, there becoming adherent, and abnormally proliferating, until by its bulk expulsive action is occasioned.

In the way of treatment Dr. More Madden knows of nothing that can be done to arrest the progress of the disease, but an attempt should always be made to prevent its recurrence by improving the general health of the patient by alteratives and ferruginous tonics, especially any of the saline chalybeate waters, such as Kissengen Spa, Tunbridge Wells, or Lisdoonvarna. It has been recommended that we should bring about the expulsion of these so-called vesicular moles as soon as they are discovered. This, however, is clearly wrong practice; for it is quite possible that only a portion of the placenta may be affected; or, as the writer has seen, the birth of a healthy living child may be followed by the myxomatous placenta of a blighted twin conception. Hence, even if this disease could be diagnosed at any time during the nine months of pregnancy, we should still let nature take her course, rather than by unnecessary interference run the risk of destroying a fetus which experience has shown may possibly coëxist with the vesicular growth *in utero*.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By Wallace A. Briggs, M. D., Sacramento, Cal.

A Criticism on the Midwifery Forceps in General Use.—1. Length: Simpson's forceps meet the requirements of the vast majority of cases, even when the head is at the brim; still, they would be improved by

increasing their length to that of Barnes' forceps. 2. Handles: The value of a pair of forceps depends quite as much on the form of the handles as on that of the blades. To be readily serviceable they should properly balance the blades in the hand. This principle at once discards the very short, as seen in Matthews-Duncan's forceps, and the unduly long and heavy, as in the French type. The form of the handles determines not so much the amount of force that can be exerted as the conservation of the force. It is important to avoid fatigue, and thus to preserve delicacy of diagnostic touch and an exactly balanced control of movement. To this end Simpson's handles are best adapted. 3. Lock: The consensus of opinion is strongly in favor of the English or Smellie lock in preference to the button and mortice or screw. 4. The parallel shanks have now been adopted in all the best forceps. A slight addition to the length of the Simpson's forceps is required in order to bring the lock more external in high operations. 5. The pelvic curve has also been determined and does not differ in the two types of forceps under discussion—Barnes' and Simpson's. 6. Form of the blades: Thin springy blades are objectionable. The form of the blades depends largely on the fenestræ. One extreme is found in Taylor's narrow forceps; the other in several American forceps, as in those of Hodge, Smith and Wallace. An intermediate form is preferable. In both Simpson's and Barnes' the fenestræ are too narrow. An increase was first suggested to me by a pair of forceps by the late Dr. Macdonald, and since I have adopted this modification I have been fully conscious of the improved grasp and greater retentive power. 7. Axis traction rods: The ordinary forceps will hardly be displaced by one or other modification of Tarnier's instrument. Still it must be admitted that a defect in the ordinary curved instrument has been pointed out. This defect, however, may be overcome by a much simpler method. Increasing experience with the simple tractor in the form of a hook, assures me that all the advantages claimed for the complicated apparatus can be obtained by this simple contrivance readily applicable to any forceps. It enables the operator to change the direction of the force in any way required and gives much better facility in employing both hands at once, while at the same time it diminishes the risk of fatigue.—DR. STEPHENSON in *British Medical Journal*, March 31, 1888.

Sterilized Milk.—By means of numerous experiments DR. CAILLE has reached the following conclusions: 1. The preparation and administration of sterilized milk can be managed in any well regulated household. 2. The boiling of milk for twenty or thirty minutes under slight pressure, in small bottles hermetically closed, is all that is necessary to practically carry out the principle involved in sterilization; *i. e.*, to destroy the germs of fermentation. 3. The essential material are small bottles with Soxhlet's stoppers, and a tray. 4. Milk boiled in small bottles for twenty minutes and immediately closed by rubber, cork or cotton stoppers will keep sweet, if put on ice, for several days. 5. The boiling of milk in the ordinary way is faulty. All milk for infants' and children's use should be boiled in small bottles in a water bath for twenty minutes, when it will keep much longer than if boiled in the ordinary way and the usual length of time. 6. The transportation of milk during the summer months

should take place in refrigerator cars. This should be secured by legal enactment. 7. An apparatus for properly boiling and preserving milk for infants' use should be at once introduced into every well regulated household. The essential utensils are: small bottles (5 or 6 oz.) with combination stoppers (Soxhlet's), and a tray of tin or galvanized iron—all procurable for a very moderate sum. A good brush for cleaning the bottles should accompany each set; also a tin dipper, with perforated inner bottom, for warming the milk before giving it. Ten spare bottles with a few ordinary nipples would make the outfit complete. To facilitate handling and transportation such an outfit could be packed in a wooden box one foot square and high, and provided with a common handle. All the other utensils, as advised by Soxhlet, are superfluous; the more so as complicated apparatus is difficult to introduce for family use and soon discarded. Feeding tubes are difficult to keep clean, and should not be used. The ordinary nipples, for sale everywhere, will fit the bottles and can be turned inside out and thoroughly cleansed. It would be a good plan to stamp into the cover of the boiling pot: *Boil for 20 minutes*, this being important in view of the fact that printed labels are liable to be lost or mislaid.—*Dietetic Gazette*, April, 1888.

Bacteria and the Uterus after Physiological Parturition.—As the result of their recent investigations and experiments with the female rabbit, mouse and rat, STRAUS and SANCHEZ TOLEDO announce that after normal parturition no microörganisms whatever are to be found either in the uterine walls or in their secretions. The numerous microbes present in the vagina either do not enter the uterus or, if they do, are rapidly destroyed. Moreover, microbes which to these animals are eminently pathogenic may be introduced into the post-parturient uterus in immense numbers without producing infection. The specific microbe of chicken cholera presents the only exception. DEDERLAIN has also recently discovered that the lochia of the normal lying-in woman carefully withdrawn from the cavity of the uterus is also free from microörganisms and may be injected beneath the skin of the lower animals without appreciable effects, while the lochia of febrile patients similarly injected provokes accidents.—*Progrès Médical*, April 28, 1888.

Local Use of Permanganate of Potash in Diphtheria.—A solution of permanganate of potash, used by the atomizer, has given DR. MASON better results than any other drug so used. He uses a solution of two and a half to three grains to the ounce of distilled water. The first notable effect is the almost immediate arrest of the fetor, which does not return if the disinfection is properly kept up. The diphtheritic exudate is quickly rendered innocuous and self infection arrested. This spray may be used freely and with perfect safety, which is not to be said of some other drugs used for the same purpose. It should be continued until the last trace of diphtheritic exudate has disappeared. The absolute control of fetor is the best guide as to the frequency of its use.—*Brooklyn Medical Journal*, May, 1888.

Quinine as an Oxytocic.—In a communication to the District Gynecological Society DR. CORDES, of Geneva, deprecated the use of ergot in abortion before the uterus is empty. Formerly he frequently observed

the failure of ergot to expel the uterine contents. This failure is explained by the fact that ergot excites contraction of the cervix as well as of the body of the uterus, and thus imprisons the placenta instead of expelling it. As Pajot graphically expresses it: "The wolf is locked in the sheepfold." Curetting should be reserved for cases in which the placental remains are very small, slightly adherent and offensive. When the piece of placenta is large, adherent and not offensive, quinine will detach it and force it out of the cervix as a whole, and not piecemeal as does the curette. The smaller and less adherent the pieces of placenta or membrane the more inclined they are to putrefy, and unless we are quite sure of being able to extract them whole at one time, we would better try to cause the fragments to be expelled by the uterine contraction excited by quinine, or in some cases by ustilago maidis. In case the patient is not flooding to death, and the discharge is not very offensive, I would much prefer to prescribe an utero-motor than to use the curette. Quinine answers all the indications: it reduces the fever, promotes contraction of the body, *not of the cervix*, leaving the door open for the expulsion of the uterine contents. I am so persuaded of this that in my private practice I do not remember ever to have curetted in a case of abortion; and the quinine acts so wonderfully in these cases that however anxious to try Doléris' écouvillon, I have not yet had occasion to employ it.—*Annals of Gynecology*, May, 1888.

SURGERY.

By T. W. Huntington, B. A., M. D., Surgeon Southern Pacific Co's Hospital, Sacramento, Cal.

A Case of Nephrorraphy for Movable Kidney—Complete Relief of Symptoms.—S. E. C——, aged 36, married, entered the Massachusetts General Hospital September 19, 1887. Always a strong, healthy woman. Eighteen months ago developed the usual symptoms of movable kidney. Changes of position in bed and elsewhere caused intense pain. She was entirely incapacitated for work and was willing to submit to any measure offering relief. Careful examination with patient on left side revealed a movable body, resembling the kidney in size and shape, in the right lumbar region. The tumor not painful to touch, and could be displaced very far to the left of the umbilicus and down into pelvis. Urine normal. Operation September 22, 1887, under ether, patient on left side. An incision about six inches long along the margin of the quadratus lumborum muscle. The edge of this muscle was drawn to one side and the perinephritic fat exposed. This was divided and the posterior surface of the kidney was exposed. The organ moved up and down freely with respiration, undergoing a displacement of about two inches, making it very difficult to apply the sutures. Sutures of silk were passed through the capsule of the kidney by means of a round needle, without entering the kidney substance. Four of these stitches were taken and the edges of the wound drawn together, with surface of kidney approximated to their inner surface. Wound then closed tightly with superficial sutures. Antiseptic dressing. Rapid convalescence with no rise of temperature. The

stitches passed through the capsule were removed October 7th. During convalescence there was some pain in region of the kidney and in the wound. From the first there was relief of her symptoms, which has continued up to time of report, May 30, 1888. She was fitted with a special pad and allowed to get up October 30th. Before the operation she wrote: "I am miserable, and good for nothing in the world. * * * I am anxious to risk any peril for the hope of getting well." February 29, 1888, she wrote: "I am splendidly well." In this case mechanical treatment was tried patiently and thoroughly without avail. The operation has proven far more successful than I dared hope. The kidney was not fixed in its normal position, but about two inches lower down. I believe that it is extremely difficult, if not impossible, to bring the kidney, especially the right, into its normal position, but I see no disadvantage in bringing it conveniently low down. Opinions expressed by authorities (which the writer quotes extensively) present most fairly the present aspect of the best treatment in these cases as follows: That in many cases, if not in the majority, no interference is demanded or justified beyond the application of a pad. In some cases even this is not necessary, as there are no symptoms. If the symptoms are unendurable, then nephrorraphy can be done with little danger to life, and with a very good chance of permanent recovery; or, at least, enough lasting benefit to justify the operation. Finally, if fixation has not followed, as a last resort the offending viscus may be removed.—MAURICE H. RICHARDSON, in *Boston Medical and Surgical Journal*, June 14, 1888.

Considerations Bearing Upon the Etiology of Non-Union of Fractured Bones.—To what extent are defects of immobilization responsible for delayed or non-union after fracture of long bones? or is the occurrence of non-union after fracture presumably an evidence of imperfect or improper treatment? The opinions of CELSUS, of MALGAIGNE, and of P. BRUNS are in support of an affirmative reply to the latter query. The natural result of this doctrine is to expose every surgeon who chances to meet with a case of non-union or delayed union to the charge of malpractice. While non-union often occurs as a result of defective immobilization, yet, on the other hand, it is true that in an immense number of cases gross defects of immobilization are common without interfering with rapid repair. Such are fractured ribs, clavicle, humerus and femur. To these may be added a large number of cases occurring in military surgery. The frequency with which false joints have developed in fractures occurring on shipboard has been noted by various authorities as illustrative of the effects of lack of immobilization, particularly as in many instances consolidation took place after reaching port. No consideration of these cases can be complete, however, without taking into account the defective hygienic surrounding and constitutional conditions of such patients both before and after injury. The frequent failure of passive and active movements to prevent ankylosis at the elbow after excision of the joint surfaces, the invariable repair of fractures of the lower extremity of the radius in the many instances in which that fracture receives no treatment at all, the healing of fractures of ribs and of the clavicle, these are all doubtless due to the extent and activity of the

processes in the cancellated tissue involved in the injuries named. The dense, compact tissue of the shaft of the humerus or the femur presents conditions less favorable for nutritive activity than the parts just named. It is to be expected, therefore, that whatever causes, local or general, may be present in an individual case tending to lessen reparative energy would be more likely to determine absolute failure of repair in these bones than others. In the 19,455 fractures of the arm, fore-arm, thigh and leg, compiled by Bruns, the author finds that if the relative frequency of non-union after fracture of the bones of the fore-arm be taken as the unit of comparison, non-union in fractures of bones of the legs is three times as frequent, and of the femur and humerus each six times as frequent; the proportion of cases of non-union to the entire number of cases of fracture of the particular bone being nearly the same in each of these two last named bones. Granted, therefore, that fractures of the shaft of the femur and of the humerus are more frequently followed by non-union than those of other bones, and that the construction of the tissue of the shaft of these bones is such as to render them more powerfully affected by any causes that tend to hinder repair, the question recurs, ought defects of immobilization to be considered as the sole cause of arrest of repair in any considerable proportion of cases? From the sphere of this question I would exclude cases of exaggerated neglect and intentional free movements of the fragments. The question of defective immobilization in most of these cases has simply to do with the thoroughness of attempts of reposition of the displaced fragments and their retention by sufficiently efficient apparatus, of extension and counter-extension, the use of this or that retentive apparatus, the inclusion or non inclusion of neighboring joints in the immobilizing appliances, and such like matters. Certainly in the great majority of cases the results of such imperfect treatment are limited to the production of excessive callus and to deformity and shortening of the bones. That in some cases, where immobilization has been incomplete, non-union has resulted, does not necessarily imply that this result was due to the defective immobilization. Very pertinent to this point is the testimony of GIRDNER, that in the treatment of fractures in insane persons, whose restlessness made it difficult properly to adjust and immobilize the fragments, he was always able to obtain bony union, except in cases of general paresis, in which class, though as a rule more manageable than patients with most other forms of insanity, osseous union was not the rule. May it not be that in a much larger proportion of cases than has hitherto been acknowledged, a more severe inquiry would elicit other causes, either local or constitutional, to which the non-union would be properly referable rather than to the defective immobilization?—L. S. PILCHER, M. D. in *New York Medical Journal.*

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M. D., Sacramento, Cal.

Researches in Ocular Troubles in Tabes Dorsalis.—The researches which M. EMILE BERGER began some years ago in Austria, and had recently completed in Paris, on the relation of ocular troubles in tabes dorsalis, brought out some new points. These investigations were made on 109

patients, of whom 47 per cent. were syphilitic; 26 of the cases were in the preataxic stage, 50 in the ataxic, and 33 in the paralytic. Among the symptoms not thus far described, is the diminution of the intraocular tension. This struck the author especially. In only two cases did he find increased tension, and in these it had developed before the commencement of the tabetic symptoms. A considerable degree of lowering of tone was found in two eyes in the preataxic stage, eleven in the ataxic, and eleven in the paralytic. The phenomena were present 12 times on both sides. It is thus seen that diminished tension was most frequently found in the paralytic stage and most rarely in the first or preataxic stage. Another symptom which has hitherto been little observed is a paralysis of some of the muscular fibres of the lids that are supplied by the sympathetic. As a result the palpebral opening is diminished. This symptom was found in 42 cases (those due to paralysis of the third nerve were not counted). In 17 cases one side only was affected, while in the remaining 25, both sides. Myosis coëxisted with diminution of the palpebral opening 6 times in patients affected on one side and 11 times in those with bilateral trouble. The frequency with which the partial closure of the palpebral space is observed increases from the first stage to the stage of paralysis. Another new symptom is the deformity of the pupils, which, instead of remaining circular, often become eliptical. Berger found the form of the pupil to vary from normal in 32 cases in the preataxic stage, 20 in the ataxic and 5 in the paralytic. This condition was nearly always associated with myosis. This phenomenon strongly opposes the view that the myosis of tabetic patients is due to spasmodic contraction of the sphincter muscle of the iris. He believes it to be due to unequal paralysis of the iris vessels in different meridians. The coëxistence of myosis, lessened intraocular tension, and narrowing of the palpebral opening simulates the chain of symptoms produced by a section of the sympathetic. It proves that this nerve plays an important part in the appearance of certain symptoms in tabes dorsalis. It should be mentioned that pupils of M. Vulpian had previously found anatomo-pathological changes in the sympathetic in this disease. The fact that each of the symptoms may be present singly proves that the sympathetic is not the source but the course of transmission of the irritation from the spinal cord to the eye.—*France Médicale.*

Purulent and Strumous Conjunctivitis.—Doctor Valude described (*Révue des Maladies de l'Enfance*) a variety of conjunctivitis affecting children which resembles in its early stages purulent conjunctivitis. Like the lattter, it produces an abundant secretion, the lids are edematous, and corneal complications, which are the great source of danger, are quite frequent. Upon careful examination it will however be distinguished from purulent conjunctivitis. In this strumous ophthalmia the lids are especially swollen and appear hypertrophied, the conjunctival inflammation seeming secondary. The palpebral tissues are the seat of infiltration of hard and elastic edema. At the same time the nose, cheeks and lips are hypertrophied, and may be affected with papules or pustules. The diagnosis between purulent and strumous ophthalmia is important, the treatment of the two being quite different. Indeed, treat-

ment of strumous conjunctivitis with nitrate of silver gives unfavorable results. The best results are obtained by yellow oxide of mercury ointment, one to ten, irrigation with boric solution in combination with antistrumous regimen, iodide, cod liver oil, etc.—*Bulletin Général de Therapeutique.*

An Examination of the Eyes of Fifty Cases of Chorea of Children.—With a view of determining the relation which anomalies of refraction and accommodation of the eye, visual acuity, sufficiency or non-sufficiency of the recti muscles, and the condition of the fundus, bear to this nervous disease; Dr. Schweinitz examined the eyes of fifty children afflicted with chorea. As a result of his study he believed that the following conclusions were justifiable. (1) The eyes of choreic children quite commonly present chromatic asymmetry in shade, just as the same condition has been found in other forms of nervous disorders. (2) Slight difference in the width of the pupils may be observed, but not more frequently, in fact, not as frequently, as they have been noted in perfectly healthy individuals. (3) Facial asymmetry is present in about one half of the cases, just as this is present in cases of high refractive error, and also in individuals perfectly free from nervous disorders. (4) Hypermetropia and hypermetropic astigmatism are vastly preponderating conditions of refraction in the eyes of choreic children, being found in 77 per cent. of the cases, exactly as hypermetropic refraction is the preponderating condition in childhood generally, being found in 76 per cent. of eyes of children in the elementary school year. (5) Imperfect equipoise of the eye muscles is found in the great majority of cases, but is very frequently present in the eyes of school children free from chorea or neuropathic tendencies. (6) Embolism, atrophy of the disc, and optic neuritis may occur during or after attacks of chorea, but appearances in the fundus oculi characteristic of the disease have not been found. (7) As Octavius Sturges remarks: "It seems certain that a fairly constant proportion of chorea is directly connected with what may be called injudicious schooling, * * * but such nice adjustment as shall prevent over-strain on the one hand and over-indulgence on the other, is practically unattainable." Certainly an endeavor to lessen the over-strain of the eye should be made. Hence the refraction errors and muscular defects in those children should be carefully and fully corrected by glasses, by prisms when necessary, or even by judicious surgical interference, and thus a probable exciting element removed, just as we would perform the same service for eyes similarly afflicted in children who are not choreic; just as we should improve the hygiene, remove the anemia, and treat the disabled circulatory apparatus in children who are choreic. Evidence, however, seems to be quite as lacking that hypermetropic refraction is the basal cause of chorea as it is that the chorea is the cause of hypermetropia.—*New York Med. Journal.*

DERMATOLOGY AND VENEREAL DISEASES.

By G. L. Simmons, Jr., M. D., Sacramento, Cal.

The Paquelin Cautery in Acute Epididymitis.—In the July number of the *Journal of Cutaneous and Genito-Urinary Diseases*, Dr. George E.

BREWER says the use of the actual cautery in acute epididymitis was first suggested by Dr. W. S. Holstead. His method consists in lightly touching the skin over the affected organ with a white-hot cautery point. The operation requires only a few seconds, and if skillfully performed is but moderately painful. A dressing of iodoform ointment is then applied and the patient is instructed to wear a suspensory bandage. Instant relief from pain invariably follows the application of this treatment, and the patient, as a rule, is able to be up and walking about in comparative comfort. The author has treated 46 cases by this method, and in only two instances have the patients been obliged to remain in bed after the first application, and in one of these the real cause of the enforced rest was a coëxisting cystitis. It may be added in this connection that marked relief from pain in gonorrheal rheumatism may also be effected by a similar use of the cautery and iodoform ointment, and this combined with absolute rest has, in his experience, proved the most satisfactory method of managing this obstinate class of cases. Another method of applying strong counter-irritation in acute epididymitis is by means of a sixty grain solution of nitrate of silver applied to the surface of the scrotum. He has employed this in thirteen cases, often with marked success. It, however, has the disadvantage of frequently causing a slough of the epidermis, often leaving an extensive patch of superficial ulceration.

The Treatment of Callosity, Warts and Corns.—ROESEN (*Munch. med. Wochenschr.*, Nov. 9, 1888) employs the following modified salicylic acid treatment with excellent success for the removal of these epidermal hypertrophies. The object to be removed is first moistened with an antiseptic solution, then covered with a layer of pure, crystallized salicylic acid. The latter is now covered with a layer of lint, moistened with a solution of boracic acid, and the whole covered with a piece of gutta-percha tissue, secured by a bandage. When the callosity to be removed is not too thick, five days will suffice before removing the bandage. It will then be found that the new growth has shrunken and is completely isolated from the surrounding tissues. If the new growth is of unusual thickness, as is often the case on the plantar surfaces of the feet, it is then necessary that the bandage be left undisturbed for ten days or the application may be renewed after five days, either of which methods can be practised with impunity.—*New Yorker medizin. Presse*, June 1888.

"Gray Oil" in the Treatment of Syphilis.—By the term "Gray Oil" LANG designates an oil of mercury containg 30 per cent. of metallic mercury, which has the following ingredients:

Mercury,
Lanolin aa. 3 parts,
Olive Oil 4 parts.

Every five to eight days two points in the back or nates are selected for the subcutaneous injection of 0.1 to 0.15 ccms. of the oil. The symptoms begin to disappear in 2 or 3 weeks. After this time the injections are made at longer intervals until about 2 ccm. of the oil are used. A cubic centimeter of this oil contains about 0.39 gm. of metallic mercury, which is equivalent to 0.52 of corrosive sublimate. When employing sublimate by injection in the treatment of syphilis, at least 52 injections must be made

before the organism contains sufficient mercury to equal 1 ccm. of the oil. The advantages claimed for this method of treatment are briefly as follows: 1. That the mercury is regularly distributed. 2. That it is a convenient and harmless method, provided the rules of antisepsis are observed. 3. That suppuration at the site of puncture has never been observed.—*Deutsch. medicin. Wochenschr.*, June 14, 1888.

MATERIA MEDICA AND THERAPEUTICS.

By Wm. Watt Kerr, M. A., M. B., C. M., Professor of Therapeutics, University of California, San Francisco.

Ointment of the Nitrate of Mercury in Boils and Felons.—During the last six years Dr. Rorert Kenner has used successfully this preparation as an abortifacient of boils and felons. He claims that through its agency he has been able to abort nearly all cases that came under his care before suppuration had commenced. The application of the ointment is not painful, and in about twelve hours is followed by a peculiar drawing sensation, after which there is a complete cessation of all uneasiness. In treating felons the entire finger should be covered with a coating of the ointment about one-eighth of an inch thick and then enveloped in a piece of thick sticking plaster. This dressing is allowed to remain for twenty-four hours, after which time further treatment is unnecessary.—*Therapeutic Gazette*, June, 1888.

Potassium Permanganate in Anthrax and Furuncle.—Dr. C. M. Fenn, of San Diego, recommends a solution of ten grains of potassium permanganate in an ounce of water as an application which will abort or speedily cure furuncle and carbuncle. In the treatment of furuncle the solution is applied by means of a cotton-tipped probe or hypodermic needle to the core of the boil; while in carbuncle the focus of the disease is reached through one or more of the cribriform avenues which are present even before suppuration has taken place. Dr. Fenn reports cases in support of his method of treatment.—[*Journal American Medical Association*, June, 16, 1888.] In connection with this disease Dr. Robert Main writes to the *British Medical Journal*, May 19th, stating that after trying many methods for the relief of carbuncle he has adopted the following: "I inject into the carbuncle half a grain of hydrochlorate of cocaine, and wait about five minutes, until the skin is quite anesthetized, then I make a small incision into the centre of the carbuncle with a tenotomy knife, insert a small sharp piece of potassa fusa, and push it home. Afterwards a circular piece of belladonna plaster, cut larger than the carbuncle, is placed over it, so as to serve the double purpose of retaining the caustic and relieving pain. After eight hours this is removed and hot linseed poultices are applied for the same length of time. The result is that the patient always recovers about three days after the commencement of the treatment, which in this way is carried out almost painlessly.

Iodoform and Tubercle.—Dr. Rovsing, of Copenhagen, reports some experiments regarding the influence of iodoform upon tubercle which tend to show that in this disease iodoform is devoid of germicidal power. On several occasions he has innoculated the two eyes of a rabbit with pure

iodoform and tubercle respectively, and found that signs of tuberculosis appeared first in the organ in which iodoform had been placed, the irritation caused by the drug being sufficient to form a more favorable nidus for the tubercle.—*Lancet—New York Medical Journal*, June 30, 1888.

Codeine for the Relief of Pain in Abdominal Diseases.—Dr. Lauder Brunton has communicated to the *British Medical Journal* of June 9th an interesting article upon this subject. After giving a short history of the drug and mentioning such experiments as those of Berthe, who showed that seven and a half grains of codeine were sufficient to allay the irritability of the intestines to such an extent that fifteen grains of arsenic given to a dog, so protected, failed to produce any symptoms of irritant poisoning. He concludes that the drug has a marked influence upon the sympathetic nervous system and particularly upon that part known as the solar plexus and its branches. Guided by this theory he administered codeia in cases of pain in the intestine and lower part of the abdomen due to various causes, for a full account of which we must refer our readers to the original article, but they included such affections as inflammation around the cecum, renal tumor in a patient who also suffered from dilated heart and pneumonia of the right base, impacted feces in the transverse colon, cancer of the liver and pancreas. The average dose was from half a grain to a grain, made into a pill with extract of gentian, three times daily. His conclusions were that codeine has a powerful action in allaying abdominal pain, and can be pushed to a much greater extent for this purpose than opium or morphine without causing drowsiness or interfering with respiration or with the action of the bowels. These are great advantages in such cases, as that in which there was weak heart and consolidation of the base, which would have made morphine dangerous; or in cases where we desire to retain a free action of the bowels. In long continued cases of enteralgia without organic disease, it continued to relieve pain for months together, without the dose being increased to more than one grain three times daily, and the same remark applies to its use in cases where malignant disease was present.

MEDICINE AND PATHOLOGY.

By Albert Abrams, M. D., Demonstrator of Pathology, Cooper Medical College, San Francisco, Cal.

Early Symptoms of Tabes.—Galezowski, at a recent meeting of the Société de Biologie, directed attention to two symptoms, which, as a rule, escape recognition in the diagnosis of this disease. They occur at a time when no other symptom indicates its existence, and in numerous instances he has based the diagnosis of tabes merely on the existence of these symptoms, the future typical course of the affection justifying the opinion. The symptoms are, respectively, paralysis of the muscle of accommodation and anesthesia of the peri-orbital region. This paresis of the muscle of accommodation is unattended by mydriasis or paralysis of the other muscles innervated by the oculomotorius, as this paralysis is localized in only one eye, no disturbances of vision occur, when the patient sees with both eyes. This is an important means of differentia-

tion from the paralysis of accommodation occurring after diphtheria, which is, as a rule, bilateral. The peri-orbital anesthesia is absent in paralysis following certain contusions of the eye as well as in paralysis of the accessorius due to syphilis.—*Wiener medizinische Presse*, June 3, 1888.

The Etiology of Aortic Aneurisms.—In order to determine the etiological factors involved in aortic aneurisms, KARL MALMSTEN has collected all the cases of this affection occurring in Sweden during the last fifty years and subjected them to a critical analysis. From the literature thus accumulated, the etiology in 80 per cent. of the cases is referred to syphilis, and in only 20 per cent to senile degenerative changes in the artery. Traumatism and mycotic affections rarely conduce to aortic aneurisms. He is furthermore justified in concluding that syphilitic endoarteritis is more frequently encountered than like affections of the liver.—*Berliner klin. Wochenschrift*, June 4, 1888.

The Local Treatment of Pulmonary Tuberculosis by Parenchymatous Injections of Creasote.—ROSENBUSCH employs at first a one per cent. of the creasote solution, gradually increasing the strength until 5 per cent. is attained. He invariably uses almond oil as a diluent. The effects of these injections are, in his language, "often wonderful." Fifteen minutes after the injection the cough begins to disappear, and the spasmodic cough peculiar to phthisis has often been arrested by a single injection, notwithstanding the inefficacy of other medicaments. Five to eight hours after the injection a notable fall of the temperature can be observed. The temperature thus reduced may remain normal from 8 to 10 or 24 hours. After a few injections at intervals of two and three days the cough is almost completely arrested and the sputa very much diminished. The dyspnea and diaphoresis are soon ameliorated and the general condition of the patient improves. The percussion and auscultatory phenomena show decided changes. The local treatment of phthisis by these injections is indicated in all incipient cases; in chronic cases it may be employed with the hope of amelioration. The points usually selected for the injections are the apices, as they are usually the first seat of infiltration. When injections are made from the anterior surface of the thorax, the second intercostal space or even the supraclavicular region may be selected. Posteriorly, the fossa supraspinata are selected as the regions for injections. In only one case did hemoptysis follow puncture. The injections are made with an ordinary hypodermic syringe, with the use, however, of longer needles. The operation is comparatively painless and is usually well borne by the patient. Symptoms of intoxication, even after 18 injections, have never been observed by the author. He insists on the most pedantic cleanliness of the skin and of the instruments employed.—*Wiener medizin. Presse*, June 10, 1888.

Simple Ulcer of the Duodenum.—DR. W. W. JOHNSTON contributes an exhaustive article to the *American Journal of the Medical Sciences*, July, 1888, on this subject. Simple, round, or perforating ulcer of the duodenum is of the same nature as the round ulcer occurring in the stomach. Duodenal ulcer is less common than gastric ulcer; the proportions are as 1 to 30. The genesis of duodenal is the same as that of gastric

ulcer, being usually found in the beginning of the duodenum, above the point where acid reaction is changed to alkaline. The most frequent seat of the ulcer is in the horizontal portion of the intestine, on its anterior wall, near the pylorus, above the openings of the biliary and pancreatic ducts. He introduces the following table as a means of differential diagnosis.

GASTRIC ULCER.	DUODENAL ULCER.
1. Most common in women from 20 to 30 years of age.	1. Most common in men from 30 to 40 years of age..
2. Pain in epigastrium soon after eating.	2. Pain in right hypochondrium 2 to 4 hours after eating.
3. Pain relieved by vomiting.	3. Pain not relieved by vomiting.
4. Vomiting of mucus, bile, and food—gastric indigestion.	4. Vomiting rare; no gastric indigestion.
5. Hematemesis common.	5. Hematemesis rare .
6. Hemorrhage from intestines rare.	6. Hemorrhage from intestines common.

The treatment is essentially the same as in gastric ulcer.

Myxœdema.—The following in brief are the conclusions of DR. ORD in this report as Chairman of the Myxœdema Committee of the Clinical Society of London. (1) That myxœdema is a well defined disease. (2) That more women than men are affected and that the subjects are usually of middle age. (3) That clinical and pathological observations show that a destructive change of the thyroid gland is common to all cases. (4) That this change of the gland consists in the substitution of a delicate fibrous tissue for the proper glandular structure. (5) That interstitial development of fibrous tissue is observed in the skin, less frequently in the viscera, and that the same is suggestive of an inflammatory process. (6) That pathological observation, while showing cause for the changes in the skin during life and for the increased bulk of the body, owing to the excess of subcutaneous fat, affords no explanation for affections of speech, movement, sensation, consciousness and intellect, which belong to the symptoms of this disease. (7) That chemical examination fails to disclose an excess of muci in the tissues. (8) That in experiments, particularly on monkeys, symptoms resembling myxœdema have followed complete removal of the thyroid gland. (9) That in such experimental cases, an excess of muci was found in the skin fibrous tissues, blood and salivary glands, in particular the parotid gland, normally containing no muci. (10) That the removal of the thyroid gland in man is subsequently followed in many cases by symptoms resembling myxœdema. (11) That when the operation is not followed by such symptoms, the immunity in many cases is probably due to the development of accessory thyroid glands, to incomplete removal or to insufficiently long observation of the patients after operation. (12) That whereas injury to the trachea, injury of the laryngeal nerves, etc., have been supposed by some observers to be the true cause of experimental myxœdema, there is no evidence to show that of the numerous surgical operations performed on the neck and throat, involving various organs and tissues, none, save those in which the thyroid gland has been removed, have been followed by the symptoms under consideration. Pathological destruction of the thyroid gland has been followed by myxœdema. (13) That, whereas, according to clause 2 in myxœdema, women are more often

affected than men, in the operative form of myxœdema no such difference is observed. (14) That myxœdema, as observed in adults, is similar to the disease named sporadic cretinism, when affecting children; that myxœdema is probably identical with cachexia strumipriva, and that a very close affinity exists between myxœdema and endemic cretinism. (15) That while these several conditions appear, in the main, to depend on or to be associated with destruction or loss of the function of the thyroid gland, the ultimate cause of such destruction or loss is at present not evident.—*Medical Press*, May 30, 1888. In the *American Journal of Medical Sciences*, July, 1888, Hun reports four cases of myxœdema with two autopsies which are supplemented by a very elaborate microscopical report by Prudden on the tissues involved in the disease.

The Treatment of Diabetic Coma.—Dr J. Hesse refers to the researches of Stadelmann (*Archiv. f. Exper. Pathologie*, Bd. xvi., s. 419), who considers the probable cause of diabetic coma to be due to an acid intoxication of the organism. Stadelmann also considers the possibility of combatting the coma by the administration of alkalies. His suggestion was adopted by Minkowsky and Wolpe (*Ibid.* Bd. xxi, p. 138), who gave to two diabetic patients in a comatose state, a three per cent. solution of carbonate of soda, in the one case by the mouth and rectum, and in the other by intravenous injection. The good effect observed in these cases was only temporary, both patients dying comatose. Minkowsky reported still later, another case of "coma diabeticum," treated by subcutaneous and intravenous injections of a three per cent. solution of carbonate of soda. In this case the results were favorable. Author reports a fourth case, similarly treated, but with a four per cent. soda solution, the result being excellent as far as the coma was concerned. He concludes his article by highly recommending venous transfusion of carbonate of soda solution in all cases of diabetic coma.—*Berliner klin. Wochenschrift*, May 7, 1888.

The Micro-Organisms of the Normal Male Urethra and Urine.—The bacteriological investigations of Lustgarten and Mannaberg on this subject, allow them to conclude as follows: In the mucous membrane of the normal urethra, various kinds of bacteria and cocci may be found. At present, as many as eleven different kinds could be differentiated after cultivation. They call attention to the smegma bacilli, which morphologically and in their behavior to coloring fluids, simulate the bacilli of tuberculosis. The morphological determination of gonococci in the urethral secretion, especially in chronic urethritis, is not pathognomonic, for in three boys, aged, respectively, 9, 11 and 13 years, whose urethræ were absolutely normal, diplococci morphologically identical were found. Microörganisms may be found in normal urine, but they are probably obtained in the passage of the urine through the urethra. By means of a sterilized catheter, urine may be obtained which is not contaminated in this manner. Whether microbes normally exist in the urine, is a question which they still have under consideration. In three cases of "acute Bright's disease," a great number of streptococci could be found, which disappeared on disappearance of the disease. They accept, with reserve,

the relation borne by these microörganisms to acute idiopathic Bright's disease.—*Münchener med. Wochenschrift*, May 8, 1888.

The Value of Tubercle Bacillus in Clinical Diagnosis.—Dr. Percy Kidd and Mr. H. H. Taylor demonstrate the value of examining the sputum in all cases of disease of the respiratory organs of doubtful nature. Only those cases were dealt with, where the other recognized methods of clinical investigation failed to indicate a definite diagnosis. In the great majority of cases, numbering over ninety, positive results were obtained. The detection of tubercle bacilli was often very difficult and repeated examination might be necessary where the number of the bacilli was very small. Success is largely based on the following points: Judicious selection of the sample of sputum; method of preparation and staining; careful examination, with suitable appliances. The cases described were divided into five main groups: 1. No physical signs of disease of the respiratory organs. 2. Laryngeal disease of uncertain nature without definite pulmonary signs. 3. Signs of bronchitis, with or without emphysema. 4. Signs of pleurisy. 5. Signs of doubtful import—(*a*) anomalous physical signs; (*b*) slight signs at the apex; (*c*) signs confined to or marked at the base. For the purposes of prognosis, they attribute but little value to the tubercle bacillus.—*British Med. Journal*, May 26, 1888.

Sacramento Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: AUGUST, 1888.

THE ARTIFICIAL FEEDING OF INFANTS.

This subject has recently attracted considerable attention in consequence of the report of the special committee of the American Medical Association on Infant Foods and Feeding. In conjunction with this the *Philadelphia Medical Times* publishes a "Symposium on Infant Feeding," embodying the opinions of several authorities, and constituting a valuable contribution to the subject. More recently Dr. A. V. Meigs has incidentally touched upon the question when writing on the Dietetic Management of the Summer Diarrhea of Infants,[1] and Dr. Simon Baruch[2] and Professor Victor C. Vaughn[3] have dealt with the subject from a microbic standpoint. As we are now in the midst of the season when intestinal troubles in infants are prevailing it will be profitable to review the most common predisposing cause, the artificial feeding of the victims of the disease.

The Association Committee on Dietetics truly says that "the mode of feeding children and treating them under one year of age is in many cases almost criminal." This evil it traces to the character of the milk employed and to overfeeding, the hot weather and overcrowding being incidental factors. In relation to simple diarrhea or inflammatory troubles this position is no doubt correct, but with true cholera infantum the high temperature is certainly the most potent influence. Starting with the fact that the proper food for an infant is its mother's milk, we should suppose that the best substitute was one which most nearly approaches it in physical and chemical properties. We shall not mention nurses' milk, regarding it as unattainable in the vast majority of cases, unnecessary in any and always repugnant to parental feeling.

[1] Medical News. [2] Medical News. [3] Boston Medical and Surgical Journal.

The question of an efficient substitute is involved in much difficulty, for the reason that infants will exist and healthy children be reared by widely different methods; and also from the fact that undoubted authorities are inharmonious in opinion and disagree on matters of simple experiment. Thus, Dr. Eustace Smith states that the casein of cows' milk, as the rule, traverses the infant's alimentary tract and may be found unchanged in the feces; while, on the other hand, Escherich, having fed a healthy infant, ten weeks old, on pure cows' milk, one quart per diem, on examination of the feces found an almost ideal digestion of casein, he says: "There can be no doubt that healthy nurslings are capable of utilizing in the most complete manner cow casein in quantities far in excess of their requirements of nitrogen." Uffleman and Foster have reached similar conclusions. The difficulty is not lessened by the fact that infants have been successfully fed on such widely different agents as pure cows' milk, broth, and gruel, whilst it is an undeniable fact that healthy children have been reared on each of the six foods advertised in this journal. It is also a clinical fact that infants will not always thrive on what would seem to be the best diet, and that they will retain and assimilate one food while rejecting another which is theoretically superior, and thousands of infants annually survive a diet into which bread, cane sugar, vegetables, and even tea and coffee enter as regular constituents. The physician in selecting a particular food or method of feeding must take into account all the circumstances of the case before forming an opinion. He must also be prepared to change the food when found to disagree, or where assimilation appears to be defective.

The basis of the infant dietary should be cows' milk, and we believe that for ten or twelve months this should not be supplemented by any food matter. After the seventh month, by which time a healthy infant will have learned to drink freely, it will usually assimilate cows' milk without much trouble; but it is in the first few weeks of its existence that the necessity for careful supervision exists. Speaking generally, cows' milk differs from human milk in containing more casein, less fat and less sugar, being acid in its reaction, and also in the important detail that the casein of cows' milk forms a firm curd in masses of considerable size. It would therefore appear that a process which would closely assimilate cows' milk to the human secretion, and which would be simple and comparatively inexpensive, should meet the requirements.

This is the ground taken by the sub-committee of the association, which states that "one of the most decided advances in dietetics in modern times is the preparation of cows' milk with the aid of digestive agents, as in the method recommended by Prof. Frankland." The report goes on to say that the employment of stale, foul smelling, partly decomposed digestive ferments is condemned, and adds that the necessary skill and intelligence required to insure uniformity of result in the extemporaneous peptonizing of milk is rarely to be found in the household. That the partial peptonization of cows' milk is a most decided advance, we believe; but is Frankland's method a process of peptonization? It is in practice a curdling of milk by rennet, a beating up of the curded milk and straining off a portion of the curds. Can milk be peptonized by rennet? or can albuminoids be converted into peptone by pepsine except in the presence of an acid? There has been for some time before the profession an effectual and simple method of peptonizing, in any degree, cows' milk. Its odor is not as bad as that of the best pepsines. Of the partial decomposition we cannot speak from knowledge, but we know from a somewhat extended experience that it is perfectly reliable and sufficiently simple to enable any mother of average intelligence to carry it out.

Much of the dissatisfaction which has been expressed in connection with this process is traceable to the fact being overlooked that precisely the same care should be exercised with the milk as when the process is not employed, for should the milk be tainted or poisonous the peptonization will not affect its toxic properties. Milk is of all fluids the most readily contaminated or spoiled. It is also a most sensitive secretion, varying in qualities and properties with the condition of the animal, its diet and environment, and when affected by any of these, the process of predigestion leaves the particular character of the milk unaltered. The milk intended for the child should be obtained from the best possible source and should not (contrary to established custom) be the product of one cow, unless that animal is under careful personal supervision. Immediately upon being received it should be thoroughly boiled and then set aside in a cool place, being kept apart from the general supply of the household. It is a popular fallacy that boiling milk renders it difficult of digestion, the contrary being true, as it hinders the formation of hard masses of casein. The dilution of the milk will depend principally upon its special character, and next upon the age of the child and the method of feeding employed.

In cases where the milk supply is of doubtful or uncertain character, it will be advisable to abandon its use and rely exclusively upon one of the milk foods which are intrinsically amply sufficient for the proper nourishment of the child When the milk supply is beyond exception the addition of the so-called "Liebig foods" will often produce the happiest results, even in cases where peponization has not been satisfactory. We repeat that the practitioner must rely upon his own judgment in ascertaining that method which is best suited to his patient, and in temporarily suspending it or permanently substituting another when unsatisfactory.

In connection with the care of cows' milk it may be well to emphasize the fact that simply bringing the milk to the boiling point, or even boiling it in an open vessel, will not sterilize it, though sufficiently altering its condition to enable it to be kept for a greater length of time than when unheated. Careful experiment has proved that it is necessary to boil the milk for some time, and under pressure, a practical method for which will be found in another column.

The infant when artificially nourished should be regularly and sufficiently fed. Under no circumstances should feeding be resorted to as a method of quieting a child unless the necessity for food really exists. The most scrupulous care should be observed with the feeding apparatus; dangerous tubes should be discarded and an easily cleansed nipple employed. The bottle should be of good clear glass, and devoid of angles in which particles of milk may lodge. The apparatus should be thoroughly scalded after use and any remnant of the meal rejected.

It will here be pertinent to allude to a fruitful cause of peevish infants and sickly children—the withholding of good pure water as a drink. When teething and during hot weather, infants often suffer dreadfully from thirst through the ignorance and prejudice of their nurses. The water for the baby should be well boiled and then cooled without the addition of ice, and the infant should be allowed at all times to drink as much as it desires.

NOTES.

Pediatrics Amongst the Piutes.

The *Reno Gazette* describes the method of treatment adopted by a Piute medicine man in the case of a sick papoose, evidently suffering from some abdominal affection. The patient was lying on a rabbit-skin robe, the medicine man kneeling near the

papoose, and between him and the patient a large arrow was stuck in the ground. He had four assistants sitting in a semi-circle on his right and kept up a continuous dismal howling in which his quartette of assistants joined at intervals. After chanting, the medicine man arose to his feet and walked around a small fire in the centre of the inclosure seven times, chanting and beating time with a bunch of "deer nails" tied with a string to the end of a round stick, which is used as a charm to keep evil spirits away. With a wild yell he again dropped on his knees, bared the papoose's abdomen and began sucking its umbilicus for about five minutes. During this process his four assistants kept up a continual howling. The medicine man again arose to his feet, walked around the fire while a noise was heard in his throat as if in the act of gargling. The above process is continued until the patient recovers or dies. Fees are not exorbitant, as if a cure is effected three dollars is the compensation allowed. On the other hand if three consecutive patients die under the treatment the practitioner is cremated alive.

The Journal of the American Medical Association.

With the number for July 9th, the eleventh volume of the Association Journal commences. It has been further enlarged by the addition of four pages, the paper is of an improved quality and the type throughout is of a new and handsome series. These evidences of prosperity are most gratifying, particularly when it is remembered that the Journal is now a source of revenue to the Association. Regarding the management of the Journal, which has of late been somewhat severely criticized, it must be borne in mind that the resources at its command are comparatively limited, and that strict economy is the rule. On reflection it will also occur to most people that it would not be possible to conduct a medical journal in perfect harmony with the views of over 5,000 physicians. Just criticism is always desirable, but we think that the strictures at times have been neither courteous nor fair, which is the more surprising, as the writers are *de facto* proprietors of the Journal, and should be more interested in its success than anxious (apparently) to attend the obsequies.

Dr. Milner Fothergill.

The death of Dr. Milner Fothergill removes a very well known figure from medical society in London. He was born in April, 1841, and was, therefore, only in his forty-eighth year; but he had long been the subject of diabetes mellitus, of which he made very

light, always refusing to give his ailment that dreaded name. He appeared to be in his usual health until about the end of May, when gangrene of the foot set in, and, after a temporary rally, he died somewhat suddenly of diabetic coma on June 28th. Dr. Fothergill was necessarily a conspicuous figure wherever he went, and a certain eccentricity of dress, which rather tended to exaggerate his physical peculiarities, contributed to attract the attention of casual acquaintances whose interest was maintained by his really brilliant conversation. He was, in fact, a first-rate talker, and also—what all good talkers are not—a stimulator of talk in others. He told north-country stories with the true Westmoreland burr, and retained many of the old-fashioned words which have fallen out of use. He wrote in a style which was sometimes florid and inexact, but never dull. He was not a fluent speaker of set speeches, and never had the opportunity of teaching at a medical school. Nevertheless he enjoyed a considerable practice, and few physicians of the same standing could number so many professional brethren among their patients.

A Medico Legal Case.

The following case, a report of which appears in the *British Medical Journal*, is very important in again demonstrating the fact that a man is capable of voluntary movement to a considerable degree after the infliction of a wound presumed to be immediately fatal. A colored man (in the island of Jamaica) having murdered his sweetheart, entered his house and cut his throat with a razor. Some persons, who had witnessed both deeds, rushed into the house, but were unable to find him. On further search his dead body was found under the house, which was elevated from the ground about two feet. He thus traversed a distance of 16 feet to the rear entrance, then crawled through a hole in the partition and made his way to a point immediately beneath that from which he started, a total distance of 32 feet. On examination, the throat was found to have been cut from ear to ear by a clean sweep. Both carotids and jugulars being divided as well as the trachea and esophagus, the wound reaching to the anterior portion of the bodies of the cervical vertibræ.

The New Orleans Quarantine Station.

At the request of the Louisiana State Board of Health, a test of the efficiency of the modes of disinfection employed by it was made by Assistant Surgeon J. J. Kinyoun, U. S. Marine Hospital Ser-

vice, and the result has been published in Vol. III., No. 26, *Weekly Abstract of Sanitary Reports.* Surgeon Kinyoun finds that the principles of the methods of disinfection correct, but faulty in their application, and he adds that, "so far as it is possible, the methods now practised will be so modified as to secure the greatest efficiency attainable with the present form of apparatus, and as soon as it can be done the station will be removed to another place and a new plant erected having sufficient capacity to handle and disinfect vessels thoroughly and expeditiously." The superheating chamber, in which clothing, bedding, etc., was said to be exposed to a temperature of 230° to 240° F. for 20 minutes, gave a maximum reading of 133° (C?) and a minimum of 93.5° in 53 minutes, the chamber being empty. In another test of 25 minutes with the chamber charged to its full capacity, one thermometer placed between matresses and blankets failed to indicate 100 (C?) whilst another in free air space indicated 110. Several tests of the superheating chamber were made by exposing cultivations of microörganisms in portions of it where the minimum temperature was to be expected. The microbes employed included those of cholera, anthrax, enteric fever, pneumonia, yellow fever (?) and the pyogenic cocci. In eight experiments temperatures ranging from 52° (C) to 99°. (C) were obtained. In one experiment all the microörganisms were killed. The results with the sulphur dioxide fumigation of vessels was much less satisfactory. In several experiments with exposures of from 1 to 20 hours no effect was observed on many of the organisms, all being alive in several instances. In another experiment a litre of air was collected in the ship's hold before and after the fumigation process (with an exposure of from 1 to 8 hours), but in no case was there any perceptible effect on the microbes. Having pointed out the defects in the system, Surgeon Kinyoun concludes with the statement "that the establishment of the present style of apparatus is a great stride in the right direction, and has demonstrated its feasability and the correctness of the principles involved."

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting June 26, 1888.

The President, J. R. Laine, M. D., in the Chair.

Election of Secretary.—Dr. G. L. Simmons, Jr., the Secretary and Treasurer of the Society, having resigned his position in consequence of

prolonged absence from the city, DR. F. L. ATKINSON was elected to fill the vacancy.

Report of Cases.—DR. T. W. HUNTINGTON exhibited a case of double amputation with reference to locomotion upon two artificial limbs. The patient was able to walk easily with the aid of an ordinary cane. He also exhibited a case showing the result of an operation upon a cicatricial constriction in the axilla, caused by a burn; and another illustrating the efficacy of sponge grafting (*vide* pp. 362 *et. seq.*)

DR. HUNTINGTON read a paper entitled *Surgical Notes and Memoranda* (published at page 356).

DR. G. A. WHITE, in opening the discussion, said that he found but little to criticize in the paper. He was much pleased with the results in double leg amputation. He regarded drainage as the great secret of success in operative surgery. The method of treating burns, which had been mentioned, was good. In operating for hemorrhoids, he believed that the method by continued suture gave better results than any other.

DR. W. A. BRIGGS referred to the importance of asepsis and antiseptics. Manual dexterity counted for but little as compared with antiseptics in the successful issue of surgical cases.

DR. G. L. SIMMONS, in comparing the results in capital operations mentioned by Dr. Huntington and those attained by Dr. White, directed attention to the unfavorable character of the subjects received at the County Hospital as materially influencing the result. He regarded the patients received at the Railroad Hospital as representing a picked class, of good physique and free from debilitating influences. In the treatment of hemorrhoids he had found that injections of carbolic acid and glycerine had been very satisfactory. It was not invariably successful, but it was a painless and quite successful method.

DR. F. B. SUTLIFFE said that in treating extensive burns after the manner employed by Dr. Huntington, he had found it advisable to gradually withdraw the iodoform and rely on the bismuth alone which he had found to give as good, if not better results.

DR. HUNTINGTON, in replying, said that his results with the injection method in hemorrhoids had not been encouraging, and he had found that the interrupted ligature was the best procedure. Regarding the combination of bismuth and iodoform in burns, he fully agreed with Dr. Sutliffe. When the slough separated, bismuth could be used with advantage alone. He would strongly advocate the systematic noting of cases and the preservation of a record, and he believed that every practitioner could learn much from the perusal of his own cases.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting May 8, 1888.

The President, J. D. ARNOLD, M. D., in the Chair.

New Members.—Geo. W. Fuller, F. S. Cook and F. B. Carpenter were duly elected members of the Society.

Albuminuria.—Dr. Wm. F. McNutt made some remarks on the pathology of albuminuria. He referred to the confusing nomenclature used in the description of the different varieties of Bright's disease and thought that much of this might be avoided by naming them according to the individual tissue affected in each class. He said that so far as the morbid

anatomy of Bright's disease was concerned, we might regard the kidney as made up of but three tissues—blood vessels, tubules and interstitial tissues, and that the disease consisted in an affection of one or more of these three tissues. Among other things he referred to suppression of urine, and said that in tubular nephritis it was due to casts formed in the primary convoluted tubes, being unable to pass through Henle's loops which are of much smaller calibre; while in a pure glomerulo-nephritis the same result was produced by the position of the capsule reflected over the glomerulus compressing the vessels and preventing transudation.

DR. J. B. STALLARD did not think that the subject of albuminuria could be reduced to such a simple scheme as that proposed by Dr. McNutt. We should not seek an explanation of all the features of albuminuria in the morbid changes in the kidney, as, without doubt, the circulatory system, together with the vaso-motor centres and nerves, played a very prominent part.

DR. GEO. CHISMORE agreed with Dr. Stallard, and thought that it would hardly be possible to reduce diseases of the kidney to so simple a system as that proposed, since nearly a dozen different forms of albuminuria had been diagnosed and verified by autopsies. He thought that the general condition of the body should be more carefully considered, both in relation to the pathology and treatment of the disease.

PUBLIC HEALTH.

By W. R. CLUNESS, M. A., M. D., Sacramento, Cal.

Mortality.—The deaths registered in 71 town districts of the State during the past month, in a population of 711,100, correspond to an annual rate of 16.33 a thousand, the mortality having been 968. 156 deaths were due to zymotic diseases, giving an annual rate of 2.63 Of these 16 resulted from diarrhea and dysentery, 47 from cholera infantum, 28 from diphtheria, 9 from scarlet fever, 36 from typhoid fever, 7 from remittent fever and 6 from cerebro-spinal fever. 248 deaths resulted from diseases of the respiratory organs, giving an annal rate of 4.18 a thousand. Of these 156 were due to consumption, 66 to pneumonia, 16 to acute bronchitis and 10 to congestion of the lungs. The average annual death rate, from all causes, occurring in the ten largest cities and towns in the State, and representing a population of 546,000, was 16.63. The highest death rate for the month, occurring in cities having a population of 10,000 or more inhabitants, was reported from San Jose, the rate having been 19.20 a thousand. The lowest was reported from Los Angeles, the rate having been 6.85.

Cholera.—In view of the reported outbreak of the cholera in Hong Kong, China, and the intimacy of our commercial relations with that nation, it becomes the residents of the Pacific Coast States to put their house in order *now*, for there is indubitable evidence that cleansing and purifying during the prevalence of the disease in question, is not only not beneficial, but positively injurious—especially the emptying of privies and cesspools, and the removal of all decaying, moist *débris*, as well as the exposure to the air of earth impregnated with decomposing products. Nor will the observance of the strictest hygienic measures prevent the development of the cholera, provided its germ be imported and obtain lodgment in a soil favorable for its propagation. Under no circumstances has it ever originated in any country, excepting in its native home on the Ganges. Its method of travel is strictly in accordance with the intercommunication of the different nations. It is in no respect prevented from crossing mountains, but it can only do so by means of persons or

their portable effects; and, however adverse the winds may be, they form no barrier to its progress, provided affected beings or their personal effects are transported in any direction. Whether or not the comma bacillus of Koch be the pathogenic element, does not concern us materially at present; it is of the utmost importance to us, however, to *know* that it is a portable entity, which cannot be transferred from one locality to another by means of the air, as had been maintained until recently. 'Tis true that it has been known to break out suddenly in mid-ocean, thousands of miles from land, and upon vessels which had left clean ports, but it has never been shown that no portion of the cargo of such vessels had not come from a cholera-infected district. Besides, in all such cases, it is a fact that the disease always broke out after exposure of a portion of the cargo and when it had been handled and opened out by passengers or crew. But while it cannot break out spontaneously, and while no amount of filth, bad food or unhygienic influences can originate it, no one disputes the statement that it is thereby rendered more malignant and liable to spread. The evidence that it is communicated very generally by means of drinking water, or by food contaminated with choleraic germs, is indisputable; and that it is not communicated from one individual to another, as are small-pox, measles, scarlet fever, etc., is equally certain. To produce the cholera the germ must be swallowed—and not only must it be swallowed, but it must run the gauntlet of the stomach and reach the intestines, where alone it finds favorable soil for its propagation, and whence its deleterious effects first become manifest. But even should the germs be swallowed the probabilities are that they will be there digested, provided a good and healthy digestion of acid reaction be maintained. To avoid being attacked with the cholera, we should, therefore, cleanse and purify *now*. We should obtain and maintain an abundant supply of good and pure water, which, in cholera times, should always be boiled before being drank. We should keep our stomachs in a healthy condition of acid reaction, for which purpose we should drink freely of acids, properly diluted, especially sulphuric acid, under the direction of intelligent physicians. We should live upon wholesome food; our sewers and drains should be made as perfect as possible, and our spirits should be kept buoyant and tranquil. These are the measures which should be adopted for the prevention and cure of the cholera, for these are the enemies of the bacillus which causes it.

METEOROLOGY.

By J. W. Robertson, B. A., M. D., Assistant Physician to the State Asylum for Insane, Napa, Cal.

Temperature.—The mean temperature along the coast was slightly diminished, this diminution being due to cooler nights. During the day there was but a slight decrease from the average. In the modified coast and valley belts this difference was not so marked; in nearly all localities reported there being a close approximation to the normal.

Rainfall.—Along the coast, north of Cape Mendocino, the rainfall was heavy, and it was accompanied by winds characteristic of the winter. The storm centre was in the Pacific, and was by far the most severe ever reported during the month of June. Local showers were reported in various parts of the State, and were unusually heavy along the coast range, on the western slope of the Sierras, and more especially on the highlands of Shasta and Siskiyou, situated on the southern slope of the Siskiyous. The majority of these rain-bearing clouds came from the south, but elevation was necessary to precipitate their moisture. The number of cloudy days was unusually large.

California—Tabular Statement for June, 1888.

STATIONS.	Temperature. Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	Rainfall. No. of Days Rain Fell	Total Rainfall	Mean Relative Humidity	Weather. No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Wind. Prevailing Direction.	Furnished by—
Auburn.....Cal.	66.9	94.0	52.0	.....	.....	.....	.....	1.55	.....	.....	.....	.....	S.	Southern Pacific Co.
Colfax..... "	65.4	97.0	52.0	.....	.....	.....	.....	0.69	.....	.....	.....	.....	N.	" " "
Eureka..... "	58.8	71.1	46.9	64.9	53.8	11.1	15	4.66	84.9	2	13	15	N.	Signal Service U.S.A.
Fresno..... "	74.0	103.5	50.5	88.2	58.5	29.7	0	trace	51.8	21	9	0	NW.	" " "
Keeler..... "	73.9	96.0	48.5	86.2	60.6	25.6	2	0.20	26.3	22	7	1	SE.	" " "
Los Angeles.... "	67.5	94.0	50.5	82.2	56.2	26.0	0	0.00	74.1	17	12	1	W.	" " "
Monterey..... "	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Southern Pacific Co.
Napa..... "	63.5	84.0	46.0	73.9	53.0	20.0	6	0.42	.....	20	7	3	S.	Sta. Napa Ins. Asylum
Oakland..... "	63.0	80.0	53.0	.....	.....	.....	7	0.46	82.99	18	7	5	SW.	J. B. Trembley, M.D.
Paso Robles.... "	77.0	102.0	55.0	.....	.....	.....	.....	0.00	.....	.....	.....	.....	S.	Southern Pacific Co.
Red Bluff..... "	70.7	99.2	49.0	82.5	57.8	24.6	11	2.61	52.8	15	11	4	S.	Signal Service U.S.A.
Sacramento. ... "	67.7	96.0	48.5	80.8	55.2	25.5	4	0.08	59.5	17	9	4	SW.	" " "
San Diego..... "	65.9	76.2	54.0	72.4	60.4	12.0	1	0.04	60.4	5	17	8	SW.	" " "
San Francisco.. "	61.0	79.9	53.2	68.9	55.9	13.0	8	0.27	76.6	12	10	8	W.	" " "
Santa Barbara.. "	64.0	82.0	50.0	73.0	55.0	18.0	....	trace	.....	22	5	3	SE.	Hugh D. Vail.
Santa Cruz ... "	67.0	95.0	55.0	.....	.....	.....	....	0.09	.....	.....	.....	.....	S.	Southern Pacific Co.
Yuma.....A. T.	85.6	106.9	60.0	100.3	67.8	32.5	0	0.00	29.6	30	00	00	S.	Signal Service U.S.A.

Blank (.....) indicates data missing.

Clear Day—One on which cloudiness is 3 or less on a scale of 10. Fair Day—One on which cloudiness is from 3 to 7.
Cloudy Day—One on which cloudiness is over 7.

REVIEWS AND NOTICES.

THE USE OF ELECTRICITY IN THE REMOVAL OF SUPERFLUOUS HAIR, AND IN THE TREATMENT OF VARIOUS FACIAL BLEMISHES. By George Henry Fox, M. A., M. D., Clinical Professor of Diseases of the Skin, College of Physicians and Surgeons, New York; Professor of Diseases of the Skin, New York Post-Graduate Medical School, etc. Leisure Library Series. Detroit: Geo. S. Davis. Price, 25 cents.

The proper method of removing superfluous hairs and treating other cutaneous blemishes by electricity is often a subject of inquiry by the general practitioner. In this little book he will find full directions conveyed in simple and practical language. The volume is composed of a series of papers which have been read before various societies or published in the medical journals. These have been collated and explanatory notes, suggested by further experience, have been freely introduced. The author deems it necessary to remind his readers that electrolysis cannot be performed with a faradic or cautery battery, and that the continuous or galvanic current is essential. He advises that when operating, the circuit shall always be closed with the sponge of the positive electrode, thus greatly lessening the inevitable shock. We would suggest that where the term "cell" is used some further description should be given, and that a more accurate measurement of current strength might have been included. His confidence in this method of treatment is shown in the statement that "the possibility of permanently removing a growth of hair from any part of the body, no matter how abundant, is beyond all question." The treatment of nevus, telangiectasis, fibroma simplex, acne rosacea and other cutaneous affections is also considered. While extensive operations by electrolysis are best left in the hands of specialists, the management of ordinary cases can be undertaken by any intelligent practitioner.

A DESCRIPTION OF THE DESICCATED HUMAN REMAINS IN THE CALIFORNIA STATE MINING BUREAU. By Winslow Anderson, M. D., San Francisco. Sacramento: State Printing Office.

This pamphlet consists of a description of four naturally mummified or desiccated human bodies, which were discovered in an hermetically sealed cave on the southern slope of the Sierra Madre mountains, in Mexico, at an elevation of 7000 feet. The bodies are those of a man and woman and two children, male and female, and are in excellent preservation. The measurements, which have been carefully made, show that they were of good physique and presumably of fair intellectual development. The internal organs are well preserved and can be readily identified. Dr. Anderson does not express a positive opinion as to the age of the remains, but suggests that they belong to the era of the Spanish invasion, or perhaps antedate it.

THE MODERN TREATMENT OF PLEURISY AND PNEUMONIA. By G. M. Garland, M. D., Instructor in Clinical Medicine, Harvard Medical College. Leisure Library Series. Detroit: Geo. S. Davis. 1888. Paper, 25 cents; cloth, 50 cents.

More than a review of the modern methods of treatment in pneumonia and pleurisy can hardly be expected in a compendium like this. The author, however, introduces new and original matter, based on personal observation and experimentation, in dealing with the objective symptomatology of pleurisy. In the chapter devoted to pneumonia, there is a most excellent critical review of the theories concerning the microbiotic nature of this disease. This compendium can be read with unusual interest by the practitioner.

THE ESSENTIALS OF MEDICAL CHEMISTRY AND URINANALYSIS. By Sam E. Woody, A. M., M. D., Professor of Chemistry and Public Hygiene in the Kentucky School of Medicine. Second edition. Louisville: John P. Morton & Co. 1888.

This work represents the essential facts of a course of lectures delivered on these subjects. While that part of the book devoted to chemistry is a brief though faithful exponent of modern chemistry, the section devoted to the urine is comparatively meagre and certainly insufficient, even for the wants of a medical student. It is worthy of recommendation as a text book of chemistry for the use of medical students.

THE APPLIED ANATOMY OF THE NERVOUS SYSTEM. By Ambrose L. Ranney, A. M., M. D., Professor of Anatomy and Physiology of the Nervous System in the New York Post Graduate Medical School and Hospital, etc., etc. Second edition. New York: D. Appleton & Co. 1888.

When compared with the first edition, this is virtually a new work. We observe, particularly with reference to the section on the brain, a great deal of new matter, dealing with the recent progress made in the anatomy and physiology of this important organ. This volume is enlarged and profusely illustrated by many new cuts and diagrams, which fully illustrate the author's methods of teaching and afford the student a most ready means of acquiring a thorough knowledge of neurological anatomy and physiology. In treating the present subject, Professor Ranney has simplified the most prolix department of medicine, viz., neuropathology. In the collection and arrangement of the material, he seems to recognize that no anatomical or physiological fact is worthy of consideration unless possessed of some important practical bearing in medicine. Were all books in medicine written after this manner, we would have less literature but more knowledge. We have no hesitancy in pronouncing this the representative work in the English language on the applied anatomy of the nervous system.

THE INTESTINAL DISEASES OF INFANCY AND CHILDHOOD. By A. Jacobi, M.D., President of the New York Academy of Medicine, etc. Physician's Leisure Library Series. Detroit: George S. Davis. Paper, 25; cloth, 50 cents.

The fatality of infantile diseases, their frequent occurrence on evitable causes, and their usual amenability to timely and appropriate treatment, render their study of the utmost practical importance. Helpless infancy, however, has long been overwhelmed by the swelling flood of gynecological literature. Little room is left either on the physician's library shelves or in his brain for aught else. This is right, perhaps. We have just passed through an era of gynecological discovery that leaves our female patients in need of but little else—than rest. They have led the merry dance between Sims and Emmet, between discussion and colporraphy, and have paid the distinguished artists well. *Requiescant in pace.* From the fullness, and maturity of his experience Dr. Jacobi has produced an instructive and especially a suggestive book. We have but little to criticize in the matter, but much in the manner. When he wrote "A thing of beauty is a joy forever," Keats very likely had not medical books in mind, but it is as true of them as of anything else. The constant use of "that" for this, "those" for these, "this last" for this "percentage" for rates, etc., grates very harshly on the ear attuned to idiomatic English. "A percentage of fifty per cent." is almost without precedent even in so-called "medical literature." Let us hope that these and numerous other barbarisms may be eliminated from future editions of this otherwise excellent work.

DISEASES OF THE FEMALE MAMMARY GLANDS, by Th. Billroth, M.D., Professor of Surgery at the Royal University, Vienna, and NEW GROWTHS OF THE UTERUS, by A. Gusserow, M.D., Professor of Obstetrics and Gynecology at the University of Berlin. Edited by Egbert H. Grandin, M.D., Obstetric Surgeon to the New York Maternity Hospital, etc. New York: Wm. Wood & Co. 1887.

Although the names of the authors of this work are familiar wherever surgery and gynecology are known, their works, unfortunately, are known outside of Germany almost exclusively by translation. Kant once said: "Of my pupils only Rosenkranz understands me, and he misunderstands me." If translation from mind to mind even by means of a common language is so difficult, and in rare cases impossible, what must we say of that double translation necessitated by difference of mother tongues? The opening sentence of the work in hand brings this thought forcibly to mind: "Underneath the skin, on each side of the sternum, are situated two glands, which in the female alone reach their fullest devolopment." Without consulting the original, one may well doubt, if not deny, that Billroth committed this glaring grammatical, not to say anatomical, blunder. Translations, however, we must have, until some yet undiscovered volapük undoes that Babel of tongues, which seems one of the greatest barriers to scientific progress. Notwithstanding its inauspicious beginning this translation is, all in all, an excellent one; and, indeed, gives the esthetic soul fewer shocks than much that passes for original English. The work itself, succinct yet comprehensive, deserves a place in every medical library.

THE PHYSICIAN'S BEDSIDE RECORD. Hartford, Conn.: The Plimpton Manufacturing Company.

The "Record" measures 3¼x6¼ inches, each book being intended for one patient. It provides for systematic notation, one page being provided for each day (28), and one line for each hour. There are pages for notes and history, and a clinical chart for twenty-eight days. The cost of this little book is only two cents, and in certain cases its arrangement will save time and insure accuracy.

BOOKS AND PAMPHLETS RECEIVED.

Nouveau Procédé poor Guérir les Rétrécissements de l'Urèthre Rapidement et sans aucun Danger. Par J. A. Fort, ex-interne des Hôpitaux de Paris, etc.

The Male Urethra, its Diseases and Reflexes. By Fessenden N. Otis, M.D., Clinical Professor of Genito-Urinary Diseases in the College of Physicians and Surgeons, New York, Consulting Surgeon to the New York Skin and Cancer Hospital, to St. Elizabeth's Hospital, etc. Physician's Leisure Library Series. Detroit: Geo. S. Davis. Cloth, 50 cents; paper, 25 cents.

REPORTS AND ANALYSES AND NEW INVENTIONS.

Hypodermic Tablets.

We have received from Messrs. Parke, Davis & Co., samples of their tablets for hypodermic use. They include the combinations generally employed, as well as several of the more uncommon alkaloids. They are

readily soluble in cold water, and can be given internally if desired. A small quantity of sugar of milk is used as a base in each tablet; when designed for diabetic patients, mannite is substituted.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At the regular meeting of the Board of Examiners, held July 2d, 1888, the following physicians were granted certificates to practise medicine and surgery in this State:

Tandy Allen, Healdsburg; Bellevue Hosp. M. Coll., N. Y., Mar. 13, '88.
Alexander H. Bailey, Santa Cruz; Hosp. Coll. of Medicine at Louisville, Ky., Feb, 14, '83.
Godfrey Beaumont, San Diego; M. Dep. Univ. of Louisville, Ky., Mar. 2, '69.
Jason N. Conley, San Jacinto; Rush. M. Coll., Ill., Feb. 21, '55.
Thomas Flint, San Juan; Jefferson M. Coll., Penn., Mar. 28, '49.
Hiram L. Lewis, San Diego; Washington Univ. School of Med., Md., Feb. 21, '71.
Daniel E. Mason, East Oakland; M. Dep. Univ., City of New York, Feb. 18, '79.
Henry C. Murphy, Gonzales; Jefferson M. Coll., Penn., Apr. 2. '86.
Talleyrand D. Myers, Pasadena; Jefferson M. Coll., Penn., Mar. 28, '68.
James W. Thayer, Gilroy; Coll. of Phys. and Surg. at Keokuk, Ia., Feb. 25, '79.
Sampson Trask, San Francisco; St. Louis M. Coll., Mo., Mar. 7, '79.

The following persons were refused certificates on the ground of insufficient credentials: Samuel Gunn, Pasadena; H. C. Donaldson, Pasadena; Zederico Berann, Berkeley; Adam Frank, address unknown; David Schwartz, Los Angeles; A. B. Cobb, Oakland; Auguste Emilie Junker, San Diego.

The paper presented by Mrs. Junker is a certificate of a second class mid-wife, and prohibited her from practising medicine in her own country. Those presented by David Schwartz are only questionable certificates of a second class nurse, and prohibited the holder from practising medicine in the country where they were issued. One of said certificates shows evidences of erasure where his name is written; but his application was accompanied by the usual affidavit found in Section 3 of the medical law of 1878. Several incompleted applications were laid over with the expectation that they will be perfected immediately, as the Board does not intend to carry them indefinitely. Prompt action in complying with the law is required.

The Board has determined to publish the fourth edition of the Medical Register of California, which will be issued in December. It will, as heretofore, contain the names of all persons engaged in the practice of medicine in this State, properly classified; and all who have no license will be placed in the list of "Illegal Practitioners." Those who are entitled to certificates should procure them without delay, and spare themselves that mortification. Circular letters will be sent to every postoffice in the State, and it is hoped that every physician will feel interest enough in this work to promptly report his own name and address to this office, if he cannot report that of his neighbor. The Board cannot do effective work without the support and coöperation of the profession.

Blanks were sent out last year by the former Secretary and a few answers returned; but it has been so long since, that, considering the con-

stant acquisition to our ranks and the migratory element in our profession, such information is not now deemed reliable. A complimentary copy of the book will be mailed to every licentiate of this Board in good standing in this State.

When the Register of 1885 was issued there were 485 persons who had no license reported practising medicine. Immediately thereafter an organized system of prosecutions was inaugurated, and when the Register of 1887 was issued there were only 164 reported. In 1885 the city of San Jose had twenty-one of these leeches, and when four of them had been convicted the town was freed of their presence, the Register of 1887 showing not a single one in the place, and only one in the county. What San Jose has done other towns may do by the same unity of action. The better class of the laity recognize that they are not qualified to judge of the competency of medical practitioners and look to the profession to lead in the matter of enforcing the law. We owe it to the public, to the profession, and to ourselves.

An organized system of prosecutions should again be inaugurated throughout the State, in which it is hoped all will engage with spirit. The occasion is propitious and the work is needed. It is unjust to require the better class of the profession to conform to the law and the code, while the vicious and ignorant are exempt for the want of prosecution.

In 1887 Arthur O'Leary was convicted in Yolo County, and fined $500. The case was appealed to the Supreme Court, which recently sustained the decision of the lower court, and the "doctor" has returned to his eastern home. P. Roscoe McNulty, who received a license from the Homeopathic Board of Examiners on a diploma from a Homeopathic school in Philadelphia in 1884, but which was revoked because of unprofessional conduct, has recently been tried three times in the Police Court for practising without a license. In the first trial the jury failed to agree, in the second the case was dismissed by order of the Court, and in the third he was convicted. He appealed to the Superior Court, which granted a new trial because of error in the ruling of the lower court, in not permitting the prosecution to show that the license had been properly revoked. The new trial was held before the same Superior Court, Sullivan, Judge, and resulted in another conviction. The case has been appealed to the Supreme Court, where it has been argued and submitted, and the Court has ninety days in which to decide it.

R. H. PLUMMER, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from June 16th to July 16th, 1888.

Major Robert H. White, Surgeon, ordered from Angel Island, Cal., to Ft. Myer, Va. S. O. 142, A. G. O. June 20, 1888.

Captain Curtis E. Munn, Assistant Surgeon, ordered from Fort Klamath, Or., to Angel Island, Cal. S. O. 142, A. G. O. June 20, 1888.

1st Lieut. Edward R. Morris, Assistant Surgeon, leave of absence granted in S. O. 61, May 28, 1888, Dept. of Arizona, extended one month. S. O. 142, A. G. O. June 20, 1888.

1st Lieut. Eugene L. Swift, Assistant Surgeon, ordered from Ft. Spokane, W. T., to Ft. Klamath, Or., for temporary duty. S. O. 142, A. G. O. June 20, 1888.

Assistant Surgeon William B. Banister, leave of absence extended 27 days. S. O. 157, A. G. O. July 9, 1888.

1st Lieut. William D. Crosby, Assistant Surgeon, leave of absence extended one month. Par. 8, S. O. 151, A. G. O. June 30, 1888.

Sacramento Medical Times.

VOL. II. SEPTEMBER, 1888. NO. 9.

AN ADDRESS

Delivered at the Opening of the Section of Obstetric Medicine, at the Annual Meeting of the British Medical Association, held in Glasgow, August, 1888.

By THOMAS MORE MADDEN, M. D., F. R. C. S. Ed.

Obstetric Physician, Mater Misericordiæ Hospital, Dublin, President of the Section.

Gentlemen: I gratefully appreciate the honor of my election to the Presidency of this important Section of the British Medical Association, which I regard as a compliment to the Dublin School of Midwifery, with which I have been long connected, rather than to an individual otherwise so unqualified for the distinction as myself. I shall therefore trust to your continued indulgence for condonance of whatever shortcomings may be observable in my attempt to discharge the duties now entrusted to me.

The present meeting of the Association should, I think, be especially valued by the members of this Section, for it is to Scotland, and to the genius of her sons, that the twin sciences of obstetrics and gynecology—which we are here met to cultivate—owe their earliest development in Great Britain; and to a large extent their recent progress is traceable to the same source.

Long before there was any systematic teaching of midwifery either in Dublin or in London, and fully twenty years before the foundation in the former city of the great maternity hospital—on the staff of which I served my apprenticeship to the obstetric art—a Professorship of Midwifery was, in 1725, established in the University of Edinburgh, and I have had in my possession the ancient manuscript notes of the obstetric course delivered there in 1756 by Professor Young, as well as of the lectures of Dr. Hamilton, by whom he was succeeded. From that time the obstetric teaching of the Scottish schools has come down in an unbroken continuity of excellence to our own day, and its character has been amply maintained by the reputation of their *alumni*. Thus it was to William Smellie, a native of Lanarkshire, that our professional forefathers owed a "System of Midwifery" as far in advance of any that had preceded it as the obstetric science of these last twenty years of the nineteenth century has progressed beyond that taught in 1752 by Smellie. To the same writer is more especially due the credit of the first real improvement on Chamberlen's original forceps, as well as directions for using that instrument, as he said, "on rational and mechanical principles," which even yet might be studied with much advantage by modern obstetricians.

It was in this country also that the mind of William Hunter received its early training in that obstetric art which he afterwards so successfully cultivated and practised in London, and of which he there became the most distinguished of all its older British teachers. Nor even in this brief retrospect can it be forgotten that in the city wherein we are now assembled, modern intraperitoneal gynecological surgery was first anticipated in 1701 by Dr. Houstoun, in the curative treatment of an ovarian tumor by abdominal section. Whilst more than a century later it was to another Caledonian surgeon—Mr. Lizzars, of Edinburgh, whose early ovariotomy cases were published in 1856—that the revival, although in a very different and improved form, of Houstoun's first laparotomy operation is mainly due. I shall not attempt to follow further the long history of the obligations of our art to the older Scottish schools, or pause to offer my humble tribute of respect to the memory of one of their ablest teachers—the late Sir James Simpson, whose name will be recalled as long as suffering humanity seeks relief in anesthesia, and as long as obstetrics and gynecology are cultivated. Nor need I here refer to the services to our branch of medicine of Dr. Matthew Duncan, who filled the position I now occupy at the last meeting at Edinburgh of this Association, or allude to the well-recognized gynecological work of Dr. Keith and of many other no less distinguished living Scottish authorities.

Whilst willingly acknowledging how much we owe to Scotland, I cannot omit a briefer reference to the similar labors of the Dublin School, although the credit of not a few of the obstetric advances that originated there in bygone years has more recently been elsewhere appropriated. Thus, for instance, the employment of version as a substitute for craniotomy as advocated by some modern German and English writers, was first suggested in 1752 by Sir Fielding Ould, the second Master of the Dublin Hospital, and was revived a century later in the same place by the late Dr. M'Clintock, whose genius, erudition, and obstetric skill entitle him to remembrance even in our most oblivious of professions. In like manner the management of the third stage of labor by the method claimed as his own in the late Dr. Spiegelberg's recently translated "Text Book of Midwifery," is practically almost identical with that followed in the Rotunda from time immemorial, as described several years ago in my edition of "The Dublin Practice of Midwifery." The resuscitation, moreover, of the use of the forceps, the prophylaxis of *post-partum* hemorrhage, and many other improvements in the management of child-birth and the puerperal state - the introduction of which is claimed elsewhere -have, I may repeat, also emanated from the same practical school of midwifery.

The foregoing reference to the historic claims of the ancient Scotch and Irish centres of obstetric science might be readily expanded. Time, however, forbids my further trespassing either in this way or by any allusion to the better known services of the early fathers of English midwifery; as Raynald, Willoughby, Harvey, Cook, Chamberlen, Chapman, Giffard, Denman and the host of other pioneers of obstetric knowledge, many of whose lives and labors are so well chronicled in Dr. Aveling's erudite "Biographical Sketches of British Obstetricians." I

shall, therefore, devote the remaining portion of this address to the more practical consideration of the results of some of the recent developments of obstetric and gynecological science.

Progressive Improvement of Midwifery Practice. — The progressive improvement of midwifery practice has been strikingly evinced during the past few years. Thus the pathology and preventive treatment of intrauterine death and abortion have been freed from much of their former obscurity and difficulty by the recent writings of Dr. Priestly. The prevalence of puerperal septicemia, by epidemic outbursts of which, in my early days, I have repeatedly seen the crowded wards of a great maternity hospital decimated, has been largely diminished by the hygienic and antiseptic measures now adopted for its prevention. Whilst if septicemia should still occur, we are now armed with more scientific means for the curative treatment of this disease which some years ago was generally classed amongst the incurable *opprobria* of our art. In like manner, by the adoption of improved methods for the prevention and treatment of *post-partum* hemorrhage, that once frequent source of obstetric mortality has been almost completely removed. At the same time, the throes and pains of labor have been rendered more endurable by the employment of comparatively safe anesthetics, such as the mixture of two parts of ether and eau de Cologne with one of chloroform, which for nearly twenty years, I have found a generally efficient and agreeable anesthetic in such cases. Moreover, by judicious instrumental assistance, we may now, in many instances, safely abridge the duration of that formerly often long-protracted period of paturient suffering, which, when a student, I have too often seen allowed to continue unrelieved for forty and fifty, and even for eighty, hours and upwards. Lastly, the former appalling frequency of child-destroying operations has been reduced in an exact proportion to the increasing employment of the forceps. Nor have the limits of the utility of this instrument, as a substitute for the cephalotribe, craniotomy forceps, cranioclast, *et hoc genus omne*, been even yet fully reached.

The Uses of the Forceps and its Improvement. —The reason why any embrotomic instruments are still included in the the ordinary obstetric outfit, appears to me the fact that most midwifery practitioners do not recognize sufficiently the compressive power of the long forceps, and, moreover, rely exclusively on some one form of forceps, whether the head be above or within the pelvic cavity, and without reference to the kind of mechanical power—tractile, lever or compressive—that may be specially required in each case. Desirable as it may be to carry as few implements as possible in the obstetric bag, it is, nevertheless, impossible to combine in any one instrument properties so distinct as those referred to. In operative midwifery there should, surely, be some definite proportion between the power employed and the resistance to be overcome. Hence it seems about as needless to resort to an instrument of such compressive and lever power as the double-curved long forceps, to assist delivery in an ordinary case of delay in the second stage, as it would be to employ a steam-hammer to crack a walnut.

Recent Progress of Gynecology.—The development of this branch of medicine since our Association last met in Scotland, has been still more remarkable than that effected in the practice of midwifery during this period. Thus, for example, only a few years ago many of the most frequent forms of endouterine and periuterine disease were beyond the diagnostic and remedial reach of gynecologists, then unprovided with those means of rapidly and thoroughly dilating the cervical canal, or with the many other methods of direct investigation by the aid of which any well educated practitioner may now recognize and treat endouterine, ovarian, tubal and other intraperitoneal and pelvic complaints that baffled detection or treatment. Nor in those pre-antiseptic days could have been anticipated the wonderfully successful results since realized from laparotomy operations, and more especially ovariotomy, as well as from some still more recent developments of intraperitoneal surgery in tubal and other diseases, including even peritonitis and cancer of the uterus, the latter a subject which has been recently elucidated in Dr. J. Williams' Harverian Lectures. In the last named cases, however, it is a debatable question whether we should persevere further with the intraperitoneal procedure for the removal of the uterus introduced by Freund, in view of the better results obtained from the vaginal method advocated by Dr. Martin, of Berlin; and also whether in the latter case the operation should be limited, as recommended by Dr. Williams and Dr. Brathwaite, to the removal of the cancerous portion, and not be extended to the extirpation of the entire uterus.

Only within the time referred to has the general correctness of Dr. Graily-Hewitt's views with regard to the importance and treatment of uterine displacements and flexions become commonly accepted. Neither were the symptoms and appropriate treatment of ovarian displacements understood until a more recent period, when attention was directed to them by Dr. Barnes' able paper on this subject in the *American Journal of Obstetrics*, and in a minor degree, perhaps, also by a memoir of mine on the same topic in the transactions of the Irish Academy of Medicine. Nor is it so long since the bearing of cervical lacerations on pelvic pathology, as first demonstrated by Dr. Emmet, of New York, first became recognized in this country. Finally, the diagnosis, importance and curability of diseases of the uterine appendages, such as hydro and pyosalpinx, together with several other causes of female suffering and death, were, in like manner, practically ignored by gynecologists until within a very recent period.

Influences of Prejudice and Fashion on Gynecological Progress.—In the history of many of the successive developments of gynecology just referred to, we may observe proofs not only of the progress of our art, but also of the two cause which have temporarily retarded its advancement. The first is the opposition generally offered in matters medical, as in most others, to all innovations, and the consequent reaction by which the pendulum of professional opinion is swung from one extreme to the other, exaggerated over-estimation, thus generally succeeding to earlier adverse prejudices. The second is the potent influence of fashion on

medical opinion and practice; for, strange as it may be why this should be the case, it is, nevertheless, true, that—

> "In physic, as in fashion, we find
> The newest is ever the rage of mankind."

This is strikingly illustrated in gynecological practice, in which it now seems almost as much the fashion to ascribe various obscure female complaints to ovarian and tubal disorders, as, a few years ago, it was to attribute similar ailments to uterine flexions and displacements; or as, ten years earlier, it was the mode to credit them to chronic inflammation, or what was then regarded as ulceration of the neck of the womb; or yet, a century previously, to set them down, in the phraseology of our professional ancestors, to "the spleen" or "the vapors."

Gynecological Specialism and Woman's Place Therein.—In this connection I may venture to observe that I cannot agree with those who are opposed to the admission of women into the practice of our department of medico-chirurgical science for which their sex should apparently render them so especially adapted. I can see no valid reason why any well qualified practitioner, male or female, should not be welcomed amongst us. Nor if there are women who prefer the medical attendance of their own sex, does it seem fair that in this age of free trade they should not be afforded every opportunity of exercising their discretion in a matter so personal to themselves. For my own part, I greatly doubt that, in these countries at least, "The Lady Doctors" (as they are termed) will ever replace the ruder sex in the general estimation of their sick sisters. But, if not here, elsewhere there is unquestionably an ample field for female practitioners, and, more especially, in India and other Oriental countries, where millions of suffering women and children are fanatically excluded from the possibility of any other skilled professional assistance; and I therefore think that such practitioners are entitled to admission into our ranks in the British Medical Association.

Laparotomy in Relation to Gynecology.—Foremost amongst the proofs of modern gynecological progress, the most signal is that afforded by the results of abdominal surgery in the treatment of ovarian tumors, as demonstrated in countless cases at home and abroad and in this country more especially in the practice of Sir Spencer Wells, Dr. Keith, Mr. Lawson Tait, Dr. Bantock, Dr. Savage, Mr. Thornton, and other specialists in this department of operative surgery, which, not very many years since, was so loudly and unfairly decried. Whether this should encourage the present frequency of resort to laparotomy in the various other intraperitoneal morbid conditions in which it is now advocated, or not, is however, another question, and one which, I think, may be still advantageously reconsidered.

Treatment of Fallopian Tube Diseases.—With respect to the tubal diseases, to the operative treatment of which so much attention is now devoted, and which I have elsewhere fully discussed, I shall only here again observe that, whilst recognizing the fact that in some instances of pyo-salpinx and hydro-salpinx the removal of the diseased uterine appendages affords the only available means of treatment, and fully appre-

ciating the surgical skill by which operations for this purpose have been brought to their present perfection, I have not, in my own experience, found laparotomy operations as generally necessary in such cases as they are apparently now deemed by others. On the contrary, I am confirmed by increasing observation, in the belief that in some instances these tubal diseases, more especially in cases of hydro-salpinx, may terminate favorably without any surgical treatment, and, moreover, that in other cases such collections, whether purulent or serous, may be evacuated by cautious aspiration through the vaginal roof. Very recently I had an opportunity of again proving the advantages of this method of treatment in the case of a lady, who after many months of suffering, was sent to me from a distant country to have the affected uterine appendages removed, but whom I succeeded in relieving of her trouble, with the assistance of my friend, Dr. Duke, by aspirating the Fallopian tube, and thus removing about ten drachms of serous fluid from the distended duct. I would, therefore, still urge the expediency of a fair trial of other less serious methods of treatment before resorting to the extirpation of the uterine appendages in these cases generally.

Operative Treatment of Uterine Tumors.—It would be impossible within the limits of this address, to enter at length into the consideration of a question so large and so controversial as the general necessity for surgical interposition in the treatment of uterine fibromata. This, I am glad to see, will be brought before you during this meeting by those eminently qualified to speak on the subject; and I trust that in the ensuing discussion new light may be thrown on the comparative merits of the various intraperitoneal and vaginal surgical procedures advocated in such cases, as well as on the value of electrolitical treatment. Nor, in this connection, should the possibility of arresting the growth of these tumors in some instances, by appropriate medical treatment, as well as the greater probability of thus effectively checking hemorrhage so occasioned, and more especially by the free administration of ergot and iodide of potassium, to which I have elsewhere called attention, be entirely lost sight of.

With regard to the former, or surgical method, I may, however, venture to repeat that, in the majority of cases of interstitial and subperitoneal uterine tumors, no active treatment whatever appears to me essential, inasmuch as such growths seldom, if ever, destroy life, and in many cases become arrested in their development and quiescent in their symptoms at the menopause, or may even possibly disappear altogether in the course of time. The latter event is, however, far too exceptional to have much influence in determining the expediency of surgical treatment, and more especially that by öophorectomy, which is unquestionably called for in the case of fast-grown fibroids, giving rise to otherwise uncontrollable urgent hemorrhagic or pressure troubles, particularly when occurring in young patients.

With regard to hysterectomy, although exceptional cases may occur in which this procedure is necessitated, the average mortality that has followed its performance, is such as to forbid its general employment, as an operation of election, in a disease, the average mortality of which,

when left to nature, is so comparatively insignificant. Whilst as to myotomy, in view of its too common results, I can only repeat that it would appear to me a method by which a patient may be effectually removed from a tumor, rather than as an operation by which a tumor can be safely removed from a patient.

Treatment of Uterine Fibroids by Electricity.—Although I have so nearly exhausted the allotted limits of this address, I cannot omit a few words in reference to the latest and most promising of the methods available in the treatment of uterine fibromata—namely, that by electricity. Within the past year and a half, I have had occasion to try this method in some ten instances, in my hospital and private practice; and so far as the arrest of hemorrhage is concerned, the result was most satisfactory, the bleeding being thus arrested in six of these cases. But with regard to the cure of the disease from this treatment, the possibility of which had been demonstrated in the experience of Dr. Apostoli and others, who had employed it on a much larger scale, I can only say that whilst I have not as yet seen the complete subsidence of the tumor effected in any of the cases so treated by myself, in three of them its apparent bulk became distinctly diminished even after six weeks or two months treatment of this kind. It should, perhaps, be added that in all these instances I used Dr. Apostoli's original plastic clay abdominal electrode, the current used being, of course, monopolar and acting directly on the growth by the intrauterine pole, and was obtained from a powerful Leclanche battery of an estimated maximum current strength of 250 milliampères. In the first of my cases I employed the electrolytic negative current, but after a little experience I abandoned this, and in the subsequent trials used only the positive current, which, although non-energetic as a galvano-caustic, is far less liable to give rise to trouble, and from its decided hemostatic action is more suitable to these cases of large hemorrhage producing tumors, in which alone this or any other active treatment seemed to me generally necessary.

If, however, the results obtained by Dr. Cutter, and, still more conspicuously, those recorded by Dr. Apostoli, from the employment of electricity—namely, permanent benefit in ninety-five per cent. of the cases of fibromata thus treated by him—should be confirmed, as I hope may possibly be the case by the experience of those who are here about to discuss this disease, then we might well congratulate ourselves on having at last arrived within sight of the long sought for safe and effectual curative treatment of uterine tumors.

The foregoing *résumé* of some of the recent developments of obstetric and gynecological science, imperfect as it is, affords a sufficient vindication of our branch of medicine from the aspersions which have been poured upon its followers. These advances and their results are surely more than enough to show that those by whom so much has been accomplished are engaged in no narrow specialism; but, on the contrary, should rank high in that noble and ever progressive profession of medicine whose great objects are the prolongation of life and the relief of every form of human suffering.

In conclusion, gentlemen, it only remains for me to again thank you for the honor you have here conferred upon me and for the patience with which you have listened to this address.

CASES OF EPILEPSY IN CHILDREN.

By Angel Money, M. D.,
Assistant Physician to University College Hospital and Hospital for Sick Children, Great Ormond street, London.

T. M——, aged 6 years, was brought to me for curious "fits." The fits repeated themselves several times daily. It was my good fortune to witness, on separate occasions, three attacks. Very probably there was no loss of consciousness; the conjunctival reflex was not in abeyance; the pupils dilated equally on the two sides; neither the bladder nor the rectum were ever emptied during or in connection with a fit; the tongue had never been bitten.

The "fit" was solely composed of clonic spasms, unattended and certainly not preceded by tonic spasms. The clonic spasms always began in the face, then affected the arm and lastly the leg, all on the right side of the body, never on the left; the tongue did not seem to participate in the movement. The spread of the spasm from part to part was very rapid; the total duration of the attack was fifteen seconds; the phenomenon known as "facial irritability" was well marked on both sides of the face. The knee jerk on the right side was weaker than that on the left immediately after the fit, but in the intervals, though both knee jerks were ready, the right was more marked. The grasp of the right hand was weaker than the left.

Seen first in June, 1883. The mother said that the spasms had been worse since the scarlet fever, two months before. The father suffers much from nervousness and night terrors; the father's sister had had fits and the father's mother was hysterical, and the father's sister's child had epilepsy. The child herself is fond of being alone, reads a great deal, requires a great deal of attention, and, if not answered at once, the fits are said to be brought on. My own belief is, that the child's requiring an immediate answer is merely the expression of a state of nerve tension in the mental centres, preceding a similar state of the motor centres of the gray matter of the cortex. On October 26, 1885, the notes state that the child sings after an attack, and that the eyeballs jerked to the right in one attack, but there did not appear to be any loss of consciousness.

The treatment consisted in half drachm doses of bromide of ammonium on alternate nights, then ten grain doses three times a day. January 4, 1886, liquor arsenicalis and tincture of belladonna were prescribed, because the fits still continued. During a catarrh, in March, the fits were said to be more numerous. On April 15, 1886, the notes state that the fits had entirely disappeared three weeks ago. The facial irritability was still marked, and there was occasionally twitching of the fingers of choreoid character; the pulse intermitted every tenth beat. In October, 1887, these twitchings were still present, and also the facial irritability, but no further fits had been observed. She slept well and there was no jumping of the limbs before getting to sleep. After the next winter the choreoid twitching had disappeared and the patient had not been seen since.

In the next case epilepsy was accompanied by chorea, and after a time the former replaced the latter.

L. C——, aged 10 years, was first seen on September 9, 1886. Her illness began four days previously and very suddenly, with twitchings in the hand, leg and face, but only on the right side of the body. There were no rheumatic accompaniments. She was treated by massage of the whole body, and recovered in six weeks. On February 6, 1887, she was again attacked, and this time she frequently suffered from attacks of giddiness, after which her head ached and she became very drowsy. Diplopia was a marked symptom about February 15, 1887, doubtless due to the chorea. In the attacks of giddiness consciousness was frequently lost, the face blanched, the pupils dilated; the pulse remained steady, but was slowed from 72 to 60 beats per minute; the spasms were not apparently altered any way.

Writing with a blunt point on any part of the skin of the body, but especially on the arm of the right side, was followed by a beautifully defined red tache. Occasionally the written characters were white with red borders (*vide Lancet*, Vol. II, 1887, paper by myself). This case was treated with many drugs, but picrotoxin appeared to be most useful.

THE PNEUMATIC CABINET AND ITS USE IN THE TREATMENT OF PULMONARY DISEASES.

By Albert Abrams, M. D., San Francisco.

Read before the San Francisco County Medical Society.

The benefits derived from mechanical means in the treatment of pulmonary affections, constitute one of the great achievements of

modern therapeutics; and the pneumatic cabinet, by which many of these results are attained, has now become a permanent fixture of the physician's armamentarium. This instrument has survived the lapse of time, the most crucial test for an apparatus of science. The theories involved in the application of the cabinet and the truly brilliant results achieved, have not received just recognition—which fact also explains, aside from expense, its rather limited use by physicians. The literature on pneumotherapy has become so extensive, that no more than a brief *résumé* of the same can be accomplished in the limited time at my disposal.

With the cabinet we can influence diseases of the lungs, by the use of compressed or rarefied air and by topical medication. Apparatus for the treatment of diseases of the lungs by compressed or rarefied air were utilized long before the cabinet, as devised by Dr. Williams and Mr. Ketchum, was introduced but a few years ago to the medical profession. And while the instrument of the latter gentlemen represents no absolutely new method of treatment, its construction on the most approved principles of physics has accomplished much in making ærotherapy a recognized and successful method of treatment in thoracic diseases.

The main principle involved in the cabinet of Dr. Williams, is this: that the air which the patient breathes is of a different tension from that surrounding the body, and which is properly called the principle of pneumatic differentiation. Granting we have a patient on whom we desire to test the action of compressed air: After the patient enters the cabinet, which is practically an air-tight iron safe, about 5 feet high, 2 feet wide and 2½ feet deep, by a slow and regular movement of the air pump, we secure the requisite atmospheric rarefaction. The patient, now immersed in a rarefied atmosphere, will, when a stop-cock is opened, be breathing the outside air, which is relatively compressed air. This relatively compressed air when inhaled will expand the lungs, including in such expansion parts which are partially or completely collapsed. The effect, furthermore, will be to compress the pulmonary blood vessels and thus exsanguinate the lung tissue. These effects are purely mechanical, and we attain thereby, as observation has taught, an increase in the thoracic capacity from 25 to 100 per cent. and a corresponding development of chest measurements and expansion. The elasticity and contractility of the pulmonary tissue is improved, the respiration rendered less frequent and congestion, if present, is subdued. The objection usually cited in regard to

the liability of creating hemorrhage by the use of compressed air, proves to be groundless, as ample clinical evidence will substantiate. The effect of this treatment is to increase the blood pressure in the large blood vessels and to decrease the pressure in the smaller arteries and capillaries of the lungs, so that the result would be to decrease the tendency to hemoptysis and even to arrest the same if it exists. Dr. Isaac Platt, of Brooklyn, New York, speaks of patients calling at his office, complaining of the sputa being blood-streaked, and almost without a single exception the use of the cabinet has relieved this symptom in the course of a few minutes. In advanced cases of phthisis where cavities exist, the latter are occasionally traversed by blood vessels, and it is in such instances that hemorrhage may occur by the use of the instrument; but inasmuch as such unprotected blood vessels will surely rupture in the course of time, any premature rupture is but an anticipation of a certain event. As a rule, however, we can attribute to compressed air a hemostatic action. I have never looked upon a moderate amount of hemorrhage from the lungs as a serious complication, but as having rather a salutary effect—it is, as it were, an expression of relief from a congested organ. The antihyperemic action of compressed air would suggest its use in pneumonia during the stage of engorgement or at any time prior to exudation. I am not aware, however, that the cabinet has ever been put to such use.

There are also chemical effects secured by the use of compressed air, viz: by the increased introduction of oxygen into the system, on the principle that the inspired volume of compressed air contains more oxygen than a like volume of rarefied air. The chemical action is evidenced by an increase of the appetite, muscular power and body weight.

Thus far we have succinctly considered the mechanical effects of compressed air, and were this the only action effected by the use of the cabinet, it would prove sufficiently valuable as an agent of therapeutics. By such action we effect a most thorough ærial *lavage* of the respiratory apparatus and expel the residual air which always stagnates in the remote parts of the lungs. The air is a most thorough scavenger of the respiratory apparatus, provided the same does not suffer any material reduction in the amount of its oxygen. The air impinging on every part of the lungs is an adequate guarantee of absolute disinfection. Whether this action is germicidal, or whether it is effected by mechanically dislodging

and promoting the expulsion of the phagocytes which have consumed the microbes, we are not in a position to argue. But this much is evident, that the lungs can only remain healthy, provided they receive the necessary ærial nutrition. To speak of air as a disinfectant in connection with the apparatus of respiration, might engender the ridicule of the bacteriologist; but this is a clinical, not a laboratory fact. Among the many reasons adduced why tuberculosis more frequently attacks the apices than any other part of the lungs, one, above all others, is entitled to consideration, viz: that the apices move less on respiration than the other parts of the lungs; or, expressed in language more explicit, the air supply to the apices is not only small in volume, but furnished less frequently than are the other pulmonary districts, and inasmuch as we consider the ærial to be equivalent to the vascular nutrition, the apices represent the points of least resistance.

The pathologist who is constantly engaged in the making of necropsies is surprised why so few people die of pulmonary tuberculosis, so frequently does he encounter lesions referable to this affection. Probably all people who have attained adult life have had, at some time, tuberculosis. If the pathologist were to rely on the tabulation of his statistics, on microscopical as well as macroscopical examination of the pulmonary apices, the preceding statement would not be considered in the light of exaggeration. When we learn that the tidal or breathing volume of the air amounts to only 25 cubic inches, and that the complemental air, which is the air taken into the lungs by forced breathing, which, in addition to the tidal volume, amounts to about 100 cubic inches, and knowing that the average respiratory capacity of an adult is about 225 cubic inches, the conclusion is evident that even in a state of health the lungs are imperfectly ærated. Any prolonged quiescence of a part destined by nature to activity, serves as a favorable nidus for the invasion of disease. When a patient presents himself to us for treatment with a family history of phthisis and in whom we have every reason to believe, by the configuration of the thorax and general *habitus*, that there exists a predisposition to pulmonary tuberculosis, in obedience to older methods, we would at once proceed to nourish his body, hoping thereby to avert disease. A more rational procedure in such a case would be to primarily concentrate our forces on the poorly developed pulmonary apparatus, allowing the development of the body to be secondary to this. To accomplish

the latter procedure the pneumatic cabinet is eminently fitted, and as a prophylactic in just such cases is entitled to the utmost consideration.

Another advantage claimed for the pneumatic cabinet is that of topical medication, which is accomplished while the patient is confined in the rarefied atmosphere and breathing the outside air which enters the lungs charged with a medicated solution. In inhaling fluids which have been atomized under ordinary atmospheric pressure the resulting vapor in consequence of rapid condensation does not go beyond the larynx or trachea, as proved by observation. If, however, the patient is surrounded by a rarefied atmosphere and breathing air under relative compression charged with vapor, the same will penetrate to the ultimate air cells. We will not follow the ingenious argument of Mr. Ketchum tending to demonstrate this fact. There is ample reason to believe that, in the majority of instances, the spray does not condense beyond the primary division of the bronchi, but, granting that it did go to the ultimate alveoli, what good would it accomplish, let us say, in tubercular deposits? Here the *bacilli tuberculosis*, the pathogenic microbes of this disease, are inclosed in an impenetrable material, and even though subjected to the direct action of the spray, the latter would prove inefficacious as a germicide.

In my limited experience with the pneumatic cabinet, the same good effects were observed in the treatment of bronchitis and phthisis, notwithstanding in many instances the spray was eliminated. I believe that the topical medication, notwithstanding the opinion of Dr. Williams to the contrary, is subservient to the mechanical action as achieved by this instrument in the treatment of pulmonary diseases. The cabinet has exerted the most pronounced good in chronic as well as acute bronchitis. Acute bronchitis is usually an affection of limited duration and readily yields to almost any form of medication, but there are cases which prove obstinate and in just such cases the remarkable effects of the cabinet can be elicited. In the few cases at my disposal I have observed after a single sitting the relief of the so-called constriction, together with the dyspnea complained of by the patient and the appearance of profuse expectoration. In these cases no demand was made for a second sitting, the distressing symptoms after a single application having disappeared. The use of compressed air as an expectorant in acute bronchitis is very manifest.

In dispensing with the spray, I have done so for experimental purposes only, and would not deny any good effects from the same in bronchitis, provided the latter were confined to the larger bronchi. In capillary bronchitis, atelectasis of the lower and posterior parts of the lungs frequently occurs and prompt relief can be afforded the collapsed portions by the use of the cabinet. We must likewise remember the relief afforded in acute bronchitis to the congested blood vessels, the inspired air acting under such circumstances as an astringent In chronic bronchitis we may attribute to the cabinet almost a specific action as the results of numerous observers show.

In the treatment of pulmonary tuberculosis by the pneumatic cabinet instances of cure have been reported in recent as well as in advanced cases. All observers admit the relief afforded the dyspnea, expectoration, pyrexia, etc., in this disease. No absolute reliance can be placed on the reported cases cured by the cabinet treatment. Recovery from phthisis as witnessed at the *post-mortem* table is often a spontaneous phenemenon. It is difficult to tell whether the reported cures were solely due to the action of the cabinet or by means of other treatment which was carried on simultaneously. The diagnosis of the cases reported was not corroborated by an examination of the sputum to determine the presence or absence of the bacilli tuberculosis and elastic fibres. The complete recovery of the patient could only be confirmed when, after repeated examinations of the sputum, no tuberculous bacilli could be found. No dependence can be placed, for scientific purposes, on the statement of the patient. Any improvement must be controlled by thermometrical observation, quantitative estimation of sputa, weighing, etc.

It is a curious fact noted by the nurse in the phthisical ward of Prof. Hirschfelder at the County Hospital, that when the temperature is moderately high in phthisical individuals, the latter feel comparatively well, but when a remission of temperature occurs, this feeling of comfort is supplanted by that of dejection. The explanation of this phenomenon is difficult. A moderate degree of pyrexia is stimulating; if high, anesthetic; but perhaps an explanation based on the biology of the bacilli peculiar to this affection would prove more rational. The bacillus of tuberculosis, as shown by Koch, thrives at temperatures between 37° and 38° C., but its growth ceases at temperatures above 41° C. Perhaps the fever

has a sanitary effect, that of limiting the multiplication of the bacilli.

The reliance placed on physical signs is likewise apt to mislead in noting improvements in phthisical patients after cabinet treatment. I refer particularly to those portions of the lung which formerly elicited a dull note on percussion and which are now supplanted by pulmonary resonance. We know full well that after the use of the cabinet an emphysematous condition of the lung is likely to be provoked, particularly when the atmospheric rarefaction is too pronounced. Emphysema will develop in those parts least resistant to the inspired current of air. The parts adjacent to tuberculous infiltration represent the points of least resistance. It is the resonance over the emphysema thus developed artificially, which masks the dullness of the parts below. The good effects remarked in phthisis after the use of the cabinet, are undoubtedly due to mechanical action, viz., dilatation of collapsed portions of the lung, readmittance of air, and the expulsion of products due to retrograde metamorphoses. We are cautioned by a few observers against the occurrence of emphysema after the cabinet treatment in phthisical cases. A moderate emphysema can exist without doing any great amount of harm. In developing an artificial emphysema we are but anticipating the designs of nature, for we are increasing the respiratory area in order to make good the deficiency caused by parts of the lung which are collapsed and functionless. A compensatory emphysema thus induced will account for the great relief furnished dyspneic individuals.

I do not remember ever having made a necropsy on an adult without finding pleuritic adhesions, and if these adhesions are the products of inflammation, then pleuritis is the most frequent of thoracic affections. Pleuritis, especially pleuritis sicca, affects circumscribed portions of the pleura and often exists without attracting any attention during life. I will not enter into a discussion on the changes which these adhesions may undergo, how they may involve the integrity of the lung, increase the work of the heart and do any amount of harm, but will consider only the practical side of the question. Patients often come to us complaining of "stitches in the side," and we dismiss them usually after recommending counter irritation, believing that we have only to deal with pleurodynia or intercostal neuralgia. The occasional persistence of these pains, however, tax our ingenuity, and we yield to despair. These so-called "stitches" are, in a number of instances, undoubtedly of pleuritic origin occasioned by the forma-

tion of adhesions which break down when any undue exertion calls for increased activity on the part of the respiratory apparatus. We have here a condition somewhat analogous to that which occurs in joints—an ankylosis, which, in this instance, I will call an *ankylosis of the lung*. To destroy these ankyloses constitutes the only indication for treatment, and I know of no method by which this can be more readily and certainly effected than by the use of the pneumatic cabinet.

To intensify and concentrate the action of the inspired air on certain parts of the lung, I make frequent use of an ordinary Martin's elastic rubber bandage, with which I encircle certain parts of the chest which I desire to exclude as far as possible in the respiratory act. I will illustrate my meaning by taking a case of incipient phthisis. I wish to concentrate all activity on the apices, and in order to do so I encircle only the base of the thorax, leaving its upper part free. In cases of emphysema the difficulty experienced by patients in breathing is at the time of expiration. By introducing such patients into a rarefied atmosphere we only increase the difficulty. To treat such cases rationally, the pneumatic cabinet is provided with an ingenious mechanism, which permits the operator at will either to rarefy the air within the cabinet, or to condense it to a given degree, or alternately to rarefy and condense it. In emphysema we may rarefy the air within the cabinet with the act of inhalation, condensing it with the act of exhalation; this is a method with which I am not familiar. I have encircled the entire chest of emphysematous patients by means of the rubber bandage, securing thereby what is most needed, a difficulty in inspiration and facilitating the act of expiration. In resorting to the ordinary method of treatment with the pneumatic cabinet, by removing the external pressure of the atmosphere from the chest walls, the active and passive movements of the respiratory act are reversed. There is a forced, involuntary inspiration, followed by a forced, voluntary expiration. In ordinary breathing, the act of inspiration is accomplished by some effort, while expiration is involuntary and passive. The act of expiration while the patient is immersed in rarefied air, proves to be exceedingly tiresome and incomplete. This difficulty, I have found, may be obviated to a certain extent by the application of the rubber bandage. The rubber bandage may likewise prove a valuable adjunct to this form of treatment, when we are desirous of concentrating our forces on an

atelectatic portion of a lung, or on a circumscribed pleuritic adhesion. In conclusion, let me remark that I have considered but a few of the many uses to which this apparatus may be put.

My experience with the pneumatic cabinet has been limited, and it is only with the hope that I may be able at some future meeting to present a more elaborate and trustworthy report, that I ask your kind indulgence for this rather incomplete paper.

112 Mason street.

MEMORANDA.

Unusual Injury to the Eye by a Billiard Cue; Impaction of the Tip.

On the evening of the 4th of July some young men were enthusiastically celebrating the national holiday under the influence of alcoholic stimulation, when a disagreement arose over a game of billiards. In the altercation M. F—— was struck with the small end of a billiard cue, the point passing between the left eyeball, which it grazed, and the internal wall of the orbit, lacerating the lids, conjunctiva, etc. When first seen, three days afterwards, the lids were greatly edematous, the lacerated wound partially united, the cornea hazy and slightly ulcerated; vision very defective; the eye was somewhat prominent, and there was a purulent, watery discharge from the wound. The appearance of the eye indicated the presence of a foreign body, but the young man was sure there was none present, as he "had fallen upon a picket and had noticed that nothing broke off!" Probing the wound gave vent to some pent up pus, but a foreign body could not positively be made out. The wound was irrigated with bichloride solution, and cold water dressings and leeches were applied. After two days' treatment the condition of the eye was markedly worse than at the beginning, and I determined to search more thoroughly for a foreign body. The wound was enlarged and dilated with a pair of dressing forceps. After much uncertainty I finally decided that I could feel some extraneous substance. This was grasped with a sharp toothed forceps and drawn slowly through the original wound. Considerable force was required to extract what proved to be the leather tip of a billiard cue, greatly swollen. It measured about two-thirds of an inch in diameter and one-third in thickness. When confronted with this evidence the patient confessed to the circumstances of the accident. The eye began to improve soon after the operation under atropine, iodoform, bichloride solution, etc. Little vision, however, will be restored, as a leucoma covers a large portion of the cornea. The failure to detect so large a foreign body in the orbit was partially due to the young man's persistence in insisting that he was positive there could be none in it and the resemblance of the thoroughly softened leather tip to tissues, for which it was at first mistaken.

Sacramento, Cal. WM. ELLERY BRIGGS, M. D.

A Peculiar Bullet Wound.

A. A—— was returning from a deer hunt with his cousin, riding in an ordinary driving cart, with two rifles lying muzzles out in the bottom of the cart. The horse becoming frightened turned the cart partly over, causing one of the rifles, a Winchester, to slip out, butt first The hammer struck on the wheel, and the rifle was discharged within a few inches of the right thigh. The ball entered the thigh about three inches above the knee joint, on the posterior side, and came out three or four inches higher up on the anterior, passing outside of the femur. It then passed up to the clavicle, which it shattered; passing on upwards and backwards breaking the right transverse process of the third cervical vertebra; thence around to the left side, lodging just under the skin at the base of the skull. The brachial plexus was injured, causing pain in the right hand and paralysis of the right arm. From the first the wound in the neck appeared to be doing well; but the wound in the leg, and the shock of the discharge of the rifle and burning from the powder, destroyed the vitality of the whole thigh. Phlebitis set in, and there being no complete reaction from the shock, the boy died on the eleventh day of combined shock, sepsis, and the general inflammation occurring with the phlebitis. The point at which the ball made its exit from the thigh was lacerated, and the muscles everted over a space of four or five inches. From the ignited clothing, fully one-third of the thigh was badly burned. The most remarkable point in connection with the accident was that, considering the course of the ball, death was not immediate.

FRANK K. SAXE, M.D.

San Jose, Cal.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M. D., Sacramento, Cal.

The Action of Antipyrin on the Uterus.—At the July session of the Sociedad de Biologia, DR. CHOUPPE reported two cases, in which enemas of antipyrin had given excellent results in the relief of painful uterine contractions. At the November session he reported a third case, in brief, as follows: X—— carries a large uterine myoma, accompanied by profuse hemorrhage, which is easily controlled by ergot, whose use, however, gives rise to severe colic. Morphine relieves the pain, but renders the uterine contractions less energetic and the hemorrhage returns. Antipyrin by enema relieves the pain without causing the return of hemorrhage. Whence Dr. Chouppe concludes: (1) Antipyrin quiets pain due to uterine contractions produced by ergot. (2) Its action is directed to the element of pain and in no wise diminishes the strength of uterine contraction. DR. ORTIGOSA relates a similar experience in a case of abortion in the fifth month. The first enema of 2 gm. relieved the pains somewhat, and the second very notably, while the contractions continued regular and efficient. Dr. Ortigosa concurs in the conclusions formulated by Dr. Chouppe.—*El Progreso Gynecologico*, March 10, 1888.

Cauterization and the Curette in the Treatment of Endometritis.—For nearly forty years PROF. PAJOT has practised intrauterine cauterization in the various forms of endometritis. Twenty-five years ago he renounced intrauterine injections on account of their seeming danger. Since that time he has used silver nitrate in saturated solution, in powder, in paste; acid nitrate of mercury; anhydrous nitric acid; chloride of zinc: perchloride of iron; the thermo-cautery and the actual cautery. This he has done daily and without a single death. Four times only has he observed serious accidents, and then in imprudent patients. He never operates, however, while either the uterus or its surroundings are tender. He adopts the antiseptic method in "its full rigor," and cleanses the uterine cavity with the utmost care, so as to get the caustic in actual contact with the mucous membrane instead of its secretions. After thorough cauterizations of the cavity, he makes a large antiseptic irrigation and keeps the patient abed—four or five days after ordinary cauterizations and fifteen or twenty after severe ones. In the choice of a caustic, he follows the therapeutic principle of proportioning the nature, the energy and dangers of the remedy to the form, inveteracy and gravity of the disease. With proper precautions accidents are rarely observed after cauterization, even with the actual cautery. The curette is of value in relatively rare forms of endometritis. More women will be killed by it, and then it will take its place with the uterine repositors, formerly so much in vogue.—*Annales de Gynecologie*, June, 1888.

New Operation for Repair of Lacerated Perineum.—With the patient in either the lithotomy or the Sims' position, the left index finger is introduced well into the rectum and a long, straight, double-edged bistoury is made to pierce the tissues in front of the anus, at right angles to the vulva, and, guided by the finger in the rectum, is made to penetrate the septum for 2½ inches upward, the incision being enlarged laterally, as the knife is withdrawn, to two inches at least. The two points of incision being pressed together from side to side, a lozenge-shaped opening appears, and, when all the sutures required have been introduced, properly adjusted and approximated, the two cut surfaces are brought into direct apposition. Sutures are introduced by a strong cycle-shaped needle, with eye in point, mounted on handle, strong silver wire being the suture preferred. The needle is introduced at centre of skin incision below, and, guided by the finger in rectum, is made to travel over cut surface to its full extent above, describing the arc of a circle, and on the point of the needle appearing directly apposite is threaded with suture and drawn through. On the ends of this suture being pulled together by the fingers, a good idea can be formed of how many additional stitches may be required. When all considered necessary have been introduced and approximated, a finger of each hand passed into the rectum and vagina, respectively, will at once recognize the gain in thickness of septum, the external tissue being pushed forward fully an inch from the anus and forming a solid perineal body. The advantages of this operation are: (1) The simplest of performance as yet proposed; no danger of hemorrhage, the surfaces being brought together at once, wound dry and clean. (2) No danger of sepsis, as the incision is not open for the admission of any discharge

from either vagina or rectum during healing process. (3) No loss of tissue, consequently no harm done should operation fail.—ALEXANDER DUKE, F. K. Q. C. P., in *Medical Press and Circular*, May 9, 1888.

Puerperal Fever and Erysipelas.—In a report to the Académie de Médicine, DOYEN presented the conclusion that erysipelas and puerperal fever are mutually causative. In this conclusion Cornil concurred, although hesitating to admit that the streptococcus is the only bacterium that causes puerperal accidents. Widal concluded that: (1) So far we have discovered no characteristic distinguishing the streptococcus of puerperal fever from that of erysipelas, and it is impossible for the experimenter to distinguish one from the other. (2) The streptococcus pyogenes produces different forms of infection, and the polymorphism of the lesions caused by it is one of the most interesting points of its history.—*Progrès Médical*, June 2, 1888.

The Cause of Abortion and Premature Labor in Febrile Diseases.—The fetus, says DR. BOLUMBURU, requires an abundant supply of oxygen, as Zweifel has demonstrated. If the mother's blood is despoiled of it, asphyxia of the fetus is imminent. This occurs in variola, with high fever, double pneumonia, etc. In fever, premature labor coincides with an excess of carbonic acid, which, through the blood, coming in contact with the uterine muscles, excites them to contraction. The higher the temperature, the greater the production of carbonic acid, and, consequently, the more rapid the labor.—*El Progreso Gynecologico*, June 10, 1888.

Chloral in the Vomiting of Pregnancy.—DR. SAINT MARC believes that chloral has a direct and special influence on the contractility of the stomach. He has witnessed striking benefit from its use in the vomiting of stomach vertigo, and latterly in severe cases of the vomiting of pregnancy. He administers it by the stomach in gm. (15 grain) doses, immediately followed by food.—*Gazette de Gynécologie*, June, 1888. [I have obtained marked amelioration of the vomiting of pregnancy by rectal injections of 1½ to 2 gm. (22 to 30 grains) of chloral and regard this as the preferable mode of administration.—W. A. B.]

The Bacterium of Whooping Cough.—The following conclusions of a careful investigation are presented by DR. SSEMTSCHENKO: (1) The bacterium of Prof. Afanassjew is specific. (2) It is to be found in the sputa from the fourth day on, and possibly earlier. (3) As it increases in number the disease grows worse. (4) It disappears before the entire subsidence of the paroxysms of coughing. (5) A complication—*e. g.*, catarrhal pneumonia is accompanied by a remarkable increase in the number of bacteria. (6) The pneumonia of whooping cough is essentially different from any other known form of pneumonia. This bacterium possesses significance not only in etiology and diagnosis but also in prognosis.—*St. Petersburger medicinische Wochenschrift*, June 16, 1888.

Drugs Conveyed to the Infant by the Nurse's Milk.—PROF. FEHLING finds that all soluble matters pass from the blood through the milk to the child. Sodium salicylate, which greatly increases the flow of milk, becomes dangerous to the infant after a dose of 3 gms. Potassium

iodide is excreted slowly and may be given in the quantity of .2 of a gm. daily without harm to the child. Potassium ferrocyanide seems not to be excreted by the mammary glands at all, while on the contrary, iodoform is excreted very freely and is eliminated in abundance by the kidneys of the infant and very slightly or not all by the kidneys of the mother. The mercurial salts are not discoverable in the milk. Citric acid, mineral acids and vinegar seemed to have no influence either on the milk or the child—the former maintaining its normal alkalinity during the experiment. Fehling thinks, therefore, that the mother should be permitted to resume her usual diet as soon as she has recovered from her confinement. Twenty-five drops of tincture of opium (German Pharm.), may be given the mother without affecting the child. Morphine by subcutaneous injection may be used in .01 to .02 gm. doses ($\frac{1}{6}$ to $\frac{1}{3}$ gr. and chloral in $1\frac{1}{2}$ to 3 gm. doses (22 to 46 gr.) with safety to the child—especially if the breast be withheld for $1\frac{1}{2}$ to 2 hours after their administration. Atropine, however, must be used with great care, as it is very easily transmitted to the child by the mothers' milk, even the pharmacopeal dose producing a marked effect in this way. A moderate rise in the temperature of the mother does not affect the child, but a high temperature in the former, especially if sustained, soon produces a corresponding fever in the latter. This fact is explained by the experiments of Bumm, who found mastitis micrococci in the cellular tissue of the mamma in the mother's milk and in the alimentary canal of the child. In septic conditions, erysipelas and scarlatina after confinement, the specific micrococci are to be found as widely distributed. In these cases Fehling advises separation of mother and child and artificial food or a wet nurse for the latter. In other cases the child should be kept to the mother's breast.—*Medical Press and Circular*, May 9, 1888.

SURGERY.

By T. W. Huntington, B. A., M. D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal.

Treatment of Thecal Inflammation.—In a paper entitled "The Causes, Effects and Treatment of Tension, as met with in Surgical Practice," Bryant writes as follows upon the above topic: Let me draw an illustra- of the effects of tension from inflammation of a deep structure, bound down by inelastic tissues, such as is met with in a familiar example of thecal inflammation. What pain is at once experienced here from the first onset of the trouble, and how rapidly it intensifies! What destruction of tissues follows! And what comfort and rapid recovery ensue if the case be rightly treated. These facts are familiar to us all, and yet I am rash enough to say that I am somewhat in doubt as to whether the generality of surgical practitioners realize their full meaning and so conform their treatment to the exigencies of the case as to give their patient the best chance of recovery. It is a primary surgical duty in such cases as these to relieve tension by giving vent to pent up fluids in distended tissues, and that this practice cannot be applied too early, may safely be dogmatically advised. At the present day it may be said that this

practice is fairly universal. But is it? Is there not even now a lingering dread in some surgeons' minds of incising or even deeply puncturing an inflamed tissue before suppuration has commenced? And have not many of us heard, when an incision has been made into such inflamed tissues as those just mentioned, something like an observation of pleasure that a fluid like pus has been seen to flow as if to justify the act. Whereas the surgeon's pleasure should be where his duty lies, to give vent to pent up inflammatory fluids before suppuration or other destructive changes have taken place. In my own practice, I, as a matter of routine, cut down freely and immediately upon a finger the seat of thecal inflammation, and always congratulate myself that I have done so when only serum and blood and no pus escapes, for the existence of pus means destruction of tissue under all circumstances.—*Medical Press and Circular.*

[I drew special attention to this subject, and expressed exactly identical views in the Report on Surgery, read before the California State Medical Society, Session of 1887, and published in the transactions for that year.—T. W. H.]

Operation for Varicose Veins.—Mr. Lambert H. Ormsby thus describes a very rational operation for the radical cure of varicose veins. The patient is to be kept in bed for two days previous to the operation. On coming down to the operating theatre he is allowed to stand a few minutes so as to ascertain more clearly the situation and course of the veins affected, the integument over which is marked with a colored pencil. A pin is then passed deeply through the tissues behind the vein and brought through the skin at the other side of the vessel. A small piece of bougie is placed over and parallel to the vessel and a loop of carbolized silk is then passed underneath the point of the pin at one side, then over the bougie and so twisted from side to side over the bougie until the vein appears to be completely occluded by the pressure of the pin behind and the bougie in front. Numerous pins may be passed in this manner from ankle to knee. Very little pain or other consequences are experienced.—*Medical Press and Circular.*

Cases of Laparotomy for Tubercular Peritonitis.—The usefulness of this operation was discovered by accident. In 1862 Spencer Wells, operating for a supposed ovarian tumor, opened an encysted peritoneal effusion and found the walls of the cavity and the surrounding peritoneum thickly studded with tubercles. After removal of the fluid he closed the abdominal wound. The patient quickly recovered, not only from the operation but from all evidences of tuberculosis. Hirschfeld has observed a case thus operated upon, which subsequently came to autopsy, and it was found that the tubercles had disappeared from the serous coat of the bowels, where they had existed at the previous operation. The following cases are reported as a contribution to the statistics of this operation, and the second of the two is interesting as being one of the first cases in which the diagnosis of tuberculosis was made before operation. This is the youngest patient on whom the operation has yet been done:

Case I.—Minnie B——, colored, aged 16, entered the Massachusetts General Hospital June 15, 1886. Two weeks before entrance she noticed

swelling of the legs. A week later the abdomen was perceptibly swollen and she began to be troubled with dyspnea. Later symptoms were abdominal pain and enlargement and great prostration. June 21st she was tapped by Dr. W. L. Richardson and three quarts of dark yellow fluid drawn off. After this tapping a circumscribed tumor was discovered in the middle line below the umbilicus. With Dr. F. C. Shattuck the writer was inclined to regard the case as one of ovarian cyst, and an exploratory incision was agreed upon. On September 17th I operated with the usual median incision, and an opening was made into the sac. Three quarts of fluid and jelly-like material were removed. The cavity was packed and a tube was introduced into Douglass' pouch. Subsequent examination of the cyst wall proved it to be filled with typical miliary tubercules. The case went on favorably and was discharged six months later with a discharging sinus but otherwise in good condition.

Case II.—Clara T——, 3 years old, entered Children's Hospital July 22, 1887. There was a family history of phthisis. A diagnosis of tubercular peritonitis was made and the case carefully watched by various gentlemen. From the date of entrance to October 15th she was tapped twice and about three pints of characteristic fluid removed each time. On the latter date I opened the abdomen by an incision one inch and a half in length. The diagnosis was completely confirmed. Every portion of the peritoneum within view was thickly studded with round, firm bodies projecting everywhere from its surface. The finger introduced into the abdomen felt as if it were lying in a bag of small shot. A little more than two quarts of fluid was removed. A little piece of drainage tube was introduced and the wound closed. Barring a severe attack of bronchopneumonia, which supervened a few days later, the case went on uninterruptedly to complete recovery.—Dr. A. T. Cabot in the *Boston Medical and Surgical Journal.*

Upon the same subject, Kümmel, of Hamburg, says: Since the appearance of Koenig's paper in 1884, the treatment of peritoneal tuberculosis has undergone material changes. While before this only a few cases had been recorded in which, owing to an erroneous diagnosis, an operation was resorted to in this disease, there has since been a considerable increase in the number of operated cases. At the present day we are justified in regarding tuberculosis of the peritoneum as a local disease in the vast majority of instances, which, like tuberculosis of the bones and joints, may be cured by surgical means. The author's experience, supplemented by the numerous contributions of others, demonstrates that it is curable, or at any rate capable of existing for many years without symptoms or disturbances of the patient's health. Kümmel tabulates forty cases of peritoneal tuberculosis treated by operation, including two of his own. Out of this number, only two died of the effects of the operation (Naumann's), apparently of septicemia; the others recovered promptly. The duration of the cure varied from twenty-five years to a few months. In some cases, as for example, that of Koenig, in which there was a coëxisting pulmonary tuberculosis, a fatal termination took place within a year. The objective signs of the peritoneal tuberculosis were

generally those of encapsulated ascites of cystic character. Rarely was the disease associated with general tuberculosis, and in no case was the development of the latter hastened by the operation. It is difficult to imagine why a laparotomy should be followed by these favorable results. That the antiseptic employed was not the curative agent, is shown by the fact that in some of the favorable cases nothing was done beyond removing the ascites and suturing the wound. It must be admitted that the disease sometimes shows a disposition to spontaneous cure, as appears by two of Gräfe's cases.—*International Journal of Surgery and Antiseptics.*

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By Wm. Ellery Briggs, M.D., Sacramento, Cal.

Naphthol in Purulent Ophthalmia.—Budin has used, in connection with nitrate of silver, a solution of beta napthol 1:2500, in ophthalmia neonatorum. In four cases of blenorrheal ophthalmia in adults, in two cases of purulent ophthalmia in infants, and in six cases of blenorrhea neonatorum, Despagnet used a solution of 1:2000 or 1:5000. In grave cases he also touched the lids with nitrate of silver. In infants, without severe symptoms, washing the eyes with the solution and the use of compresses moistened with it are sufficient. It also seemed to suffice in mild cases in adults. In a word, in grave cases of purulent ophthalmia it is necessary to associate nitrate of silver with it; but in mild cases it was satisfactory when used alone. It had the effect of reducing the palpebral edema and reducing the inflammation; but the suppuration persisted, the secretion being thick and abundant.—*Progrés Medical.*

Lactic Acid in Suppuration of the Middle Ear.—Dr. P. Aysaguer states (*Révue Mensuel de Laryngologie*) that lactic acid is especially active in treatment of hyperplastic processes, *i. e.*, in fungoid growths, granular otitis or myringitis, polypoid vegetations, and caries and necrosis accompanied with fungoid or neoplastic tissue, in the base of polypoid growths after ablation. It does not act well in simple suppuration, either acute or chronic. The treatment may be commenced with a solution of equal parts of water and acid, rapidly increased to the pure acid. With children we can often begin with the latter. In most cases the pain is very slight, or it may be absent. He has never seen it so severe as to cause the discontinuance of the treatment. It is unnecessary to syringe the ear after instillation, as is required after nitrate of silver and chromic acid. After a certain number of instillations, the fungoid and granular tissues are seen gradually to become covered with a white membrane, which is the cicatricial tissue.—*L'Union Medical.*

Ligation of a Tonsil for Hemorrhage.—Dr. E. W. Clarke reports the successful result of applying a ligature to a tonsil for threatening fatal hemorrhage after tonsilotomy. Various styptics were used without the desired result, and even Paquelin's cautery failed to check the bleeding from the largest vessels. A long clamp, with the blades padded with cotton, one blade being on the outside of the throat and the other on the tonsil, failed;

as it could not be long maintained in position on account of the pain. The patient being very nervous, ether was given, the gag introduced, and as much as possible of the bleeding tonsil seized with a vulsellum having large, bulging double points. A smaller vulsellum was used to draw the tongue out of the way, and a large silk ligature, having a double turn in the first knot, was thrown loosely around the forceps on the tonsil. With the index fingers the ligature was tightened down upon the gland. The first effort failed to secure it, but a second trial was successful. A second turn was taken about the tonsil to make it more secure. The long ends of the silk were secured to the cheek by rubber plaster. The hemorrhage was thus completely checked. The ligature came away on the fourth day without any recurrence of hemorrhage; but when the patient was discharged, a week later, he was still very pale and somewhat weak.—*N. Y. Medical Journal.*

A Case of Aural Vertigo (Meniere's Disease) Relieved by Excision of the Membrana Tympani and the Malleus.—At the last meeting of the American Otological Society, Dr. C. H. Burnett reported the following case. The patient was an unmarried woman, thirty-seven years old, who six years previously had been under treatment for chronic catarrh of the left middle ear, accompanied with difficulty of hearing, tinnitus aurium and a sense of fullness in the affected organ. Treatment did not produce any benefit, and now the symptoms mentioned had become worse, and there was superadded marked aural vertigo. The membrana tympani, in the line of the malleus handle, was found adherent to the promontory, and the consequent retraction of the entire chain of bones was believed to be the cause of the aural vertigo, of the sense of fullness, and of the tinnitus. Excision of the membrana tympani and malleus was followed by entire and immediate relief from the vertigo (which had often been sufficient to cause the patient to hold to a lamp-post for support) as well as from the other symptoms. This good result has been maintained to the present time. The hearing was practically unaffected by the operation.—*Medical News.*

Food and Throat Affections.—Dr. Ephraim Cutter says (*Journal of Laryngology*) that he found that catarrhal throat affections were not cured unless the patients were well fed. For example, pharyngitis sicca yielded when patients, in addition to local treatment, drank freely of hot water and ate two mouthfuls of animal food to one of vegetable, which he recommended from experience. This is the proportion laid down by Dr. Salisbury, who teaches that catarrhs come from improper feeding; that is, from food which ferments in the alimentary canal, forming carbon dioxide and other gases, acetic and butyric acid, etc. The carbon dioxide is the most active in producing throat and other catarrhs, by its more or less complete paralyzing action. The doctor experimented by feeding healthy men on an exclusively vegetable diet and regimen, with excess of vinegar, and found they all rapidly developed throat troubles of a more or less severe catarrhal nature. A change to normally constituted animal diet, which did not ferment rapidly, restored them to health. The author makes the following suggestions: 1. In topical treatment, as the late lamented and beloved Dr. Louis Elsberg used to say, we simply arouse a

local disturbance, and shake things up in the hope that nature will be able to settle down matters in a normal way. 2. But if we allow the cause to persist (*i. e.*, fermenting food) it is not long ere another local shaking up is needed; and, hence, we have a persistence of the disease—scotched, but not killed. 3. If we remove the prime cause, and build up the body system with food that nourishes normally, the *vis medicatrix naturæ*, we may then stir up things by topical applications and expect permanent relief. For an average case the diet may be as follows: 1. Beef, with mutton for a change. 2. Bread, cracked wheat, rice, potato, sago, hominy, tapioca, hot water, one pint one hour before meals and on going to bed; tea and coffee with cream, no sugar; pepper, butter, salt, horseradish, celery and lemons for relishes. It should be borne in mind that any food that digests perfectly is good food for that individual. Allowance must be made for idiosyncrasies.

DERMATOLOGY AND VENEREAL DISEASES.

By G. L. Simmons, Jr., M.D., Sacramento, Cal.

The Treatment of Acne.—Isaac, after reviewing the various methods of treatment for this affection, highly recommends the following ointment:

℞—Napthol, - - - - gm. 10.0
Sulphur. Precipit., - - - 50.0
Sapon. Virid.,
Vaselin. Flav., - - - aa. 20.0

This ointment is applied to the affected parts with a spatula, and remains from one half to one hour. On the following day irritation of the skin, together with desquamation, is observed, which lasts about eight days. If the irritation following the application be too intense, it is best combatted by oiling or powdering the part. A modification of this salve has been recommended in the more pernicious forms of acne, by adding ten per cent. of camphor and reducing the sapo viridis and vaseline to five per cent. The modified salve must not remain in contact with the affected part longer than fifteen minutes. He further recommends for the same purpose the following paste:

℞—Resorcin, - - - gm. 2.5—5.0
Zinc. Ox.
Amyl., - - - - aa. 5.0
Vaselin. Flav. - - - 12.5

This paste may be allowed to remain in contact with the part for one day, and on the following day is removed with cotton or oil. The good effects are observed in from three to five days. In consequence of their simplicity, Isaac considers these methods of treatment superior to any thus far recommended.—*Münchener med. Wochenschrift*, July 17, 1888.

Characteristics of the Gonococcus.—Finger considers the following characteristics of the gonococci as distinguishable from the micrococci which inhabit the urethra. 1. The gonococcus is shaped like a coffee bean, and two such organisms usually lie with their flat surfaces directed to one another. 2. Masses may be formed by the gonococci, but never chains.

3. It is easily colored and decolorized. 4. It usually vegetates in the protoplasm of the cell near the nucleus. 5. They are usually found in large numbers in the pus of gonorrhea.—*Wiener medizinische Presse*, July 15, 1888.

MATERIA MEDICA AND THERAPEUTICS.

By Wm. Watt Kerr, M. A., M. B., C. M., Professor of Therapeutics, University of California, San Francisco.

Cocaine in Quinsy.—The *British Medical Journal*, of May 19, 1888, contains an article by Dr. de Havilland Hall in the treatment of acute tonsilitis by cocaine. He reports several cases in which the disease had been cut short by the free application to the fauces of a twenty per cent. solution of cocaine, and believes that the drug acts by diminishing the sensibility so that deglutition can take place without pain, and also by diminishing the local congestion so that the inflammatory process is arrested. It would appear that cocaine is more active after the throat has been cleansed by a solution of bicarbonate of soda.

Opium in Post-Partum Hemorrhage.—Dr. R. B. McCall, Georgetown, Ohio, reports a case of very severe *post-partum* hemorrhage successfully treated with drachm doses of tincture of opium.—*Phil. Med. and Surg. Rep.*, Feb. 11, 1888. [It has been the experience of many practitioners that opium, *in large doses*, not only relieves after-pains, but is one of the best preventives against hemorrhage in those annoying cases where there is an alternate relaxation and contraction of the uterus. The statement, therefore, found in several works on obstetrics, that opium should not be given for the relief of after-pains, as it may cause relaxation and encourage hemorrhage, can only apply to those cases in which small doses are given. It should be noticed that opium produces uterine contraction only when the drug is given in large doses; also that opium, not morphine, must be given. This is in strict accordance with the therapeutics of the drug, for it has been shown that *large* and *toxic* doses of opium produce a tetanic contraction of unstriped muscular fibres, such as those in the intestines and uterus, while the fact that contraction follows the use of the crude drug, and not of morphine, would indicate the probability that it is due to the presence of another opium alkaloid, thebaine, which is a tetanizer and resembles strychnine in its action.—W. W. K.]

Nitro-Glycerine in Diabetes Mellitus.—Dr. R. A. Kennedy reports a case of diabetes mellitus successfully treated by nitro-glycerine. Mrs B——, aged twenty years, who was passing 8.75 oz. of sugar daily, was, on the 1st of March, 1887, put on one minim doses of nitro-glycerine, and on the 31st day of the following July, was convalescent, and allowed the ordinary dietary, all medication having been discontinued.—*Canada Medical Record.*

Salol.—This new remedy, which has now been in use for nearly two years, is giving considerable satisfaction as an antirheumatic, antiseptic and antipyretic. It is a salicylate of phenol, in the form of a white

powder which is insoluble in water, and may be given in doses of from ten to thirty grains three times daily. The drug is insoluble in the stomach, but on its entrance into the intestine, is at once decomposed by the pancreatic juice into phenol 40 per cent. and salicylic acid 60 per cent., on account of which action it is claimed to produce less gastric irritation than salicylic acid or salicylate of sodium. The therapeutic effects of salol are those of salicylic acid and consequently its greatest success has been in the treatment of rheumatism, but it has also been recommended as an antipyretic in phthisis, and as an internal disinfectant in typhoid fever, summer diarrhea, cholera, pyelitis and cystitis. Externally, it has been dusted on wounds and ulcers as a substitute for iodoform on account of its power as a disinfectant.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, Cooper Medical College, San Francisco, Cal.

Simple and Rapid Staining of the Tubercle Bacilli.—DR. H. P. LOOMIS directs attention to a new and simplified method especially applicable for the general practitioner. He claims quickness and precision for this method, the whole process occupying but two minutes. The following is the method of preparing the solutions. First. The Fuchsine solution. (1) Pour into a small bottle containing about 4 oz. of alcohol, enough fuchsine to make a saturated solution. (2) Let it stand 24 hours, shaking the bottle from time to time. (3) Into a four ounce bottle containing a 5 per cent. aqueous solution of carbolic acid, pour enough of the first solution to produce a distinct precipitation of the fuchsine. (4) Shake a few times and set aside for 24 hours. This is the carbolic solution of fuchsine to be used. Second. The methyl blue solution. Put into a 4 oz. bottle—

Alcohol, - -	30 parts.
Distilled Water,	50 parts.
Nitric Acid, -	20 parts.

And add methyl blue until the solution is more than saturated. The method of staining is described as follows: 1. Prepare two cover glasses by placing a portion of the suspected sputum on one cover glass, and, by means of the other, pressing it out between them into a thin layer. Allow the cover glasses to dry, and then, holding them firmly with a pair of forceps, prepared sides uppermost, pass them rapidly three times through the flame of a spirit lamp. 2. Hold cover glasses as before and pour on them a few drops of the fuchsine solution; then warm the glasses over a spirit lamp until steam rises, being careful not to allow the fluid to boil: now let the solution on the cover glasses cool. 3. Pour off the fuchsine solution. 4. Pour on the glasses the methyl blue solution and after a half minute or so wash off the excess of staining with water. Mount on a slide in water and examine.—*Medical Record*, June 9, 1888.

MM. ROUS and PITHION recently described before the Medical Society of Lyons a new modified method of staining the bacilli tuberculosis. They substitute for the carbolic acid water, as ordinarily employed, a three per cent. solution of aqua ammonia. In staining the background they

prefer a methyl green, inasmuch as the red bacilli become most distinct on a green background.—*Lyon Médical*, July 22, 1888.

[I have tried this method and find it very unsatisfactory when compared to Ehrlich's modification of Koch's method. No time is saved, as claimed by the author, for with Ehrlich's method I have accomplished the entire process by actual calculation in less than two minutes.—A. A.]

The Treatment of Simple Ulcer of the Stomach.—GERHARDT, according to HERTZKA, refers as follows to the treatment of gastric ulcer. The method of nourishing patients by rectal enemata is not so generally adopted as that of confining them to an exclusive milk diet. In ulcers of recent date a milk diet for a few weeks will suffice, but in those of longer standing it is less efficacious. The peptones, owing to their disagreeable taste, disturb the appetite, and cannot be recommended when nourishment *per os* is practised. They are, however, of value when nutritious enemata are used. A milk and meat diet, preferable in fluid form, is to be recommended, owing to its easy digestibility. The fact that there is a hyperacidity of the gastric secretion in ulcer of the stomach, suggests an almost exclusive meat diet, although in all instances we must individualize. When lactic and butyric acid fermentation exists, carbohydrates must be excluded from the dietary. Large quantities of wine and sodium chloride, by retarding digestion, are also contraindicated. Medicinal treatment is not relied on; we must be guided by the etiology of the disease and the character of the stomach contents. Morphine is contraindicated, it rather retards healing by provoking dietetic disturbances; but when pain is excessive it is a necessary evil, although atropine in many instances does more good. It is unnecessary to warn against the use of hydrochloric acid, when the ulcer is being bathed in a fluid containing an excess of this acid. In old ulcers, however, when the gastric secretion contains a diminished quantity of hydrochloric acid, the use of this acid is sometimes attended by good results. The indication for its use is especially manifested in anemic individuals. The antacids are more often indicated. The alkalies alone are of little value for neutralizing the gastric secretion, as their administration is followed by an excessive production of acid. Soda with bismuth is largely used, the latter particularly, in consequence of its disinfectant and astringent action. Irrigation with mild alkaline solutions, as the Carlsbad water, are of more value. The long continued use of Carlsbad water is followed by a reduction in the acidity of the gastric secretion. The cathartic action of this water is also of value, as it removes the stagnated contents of the stomach. The use of nitrate of silver is also recommended; it should be taken on an empty stomach, and the position of the patient so altered that the solution may come in immediate contact with the suspected seat of the ulcer. The use of condurango is, as a rule, well borne; but it must occasionally be suspended. In conclusion, the most important treatment is the irrigation of the stomach. Lavage of the stomach may be of diagnostic importance, as it is poorly borne when carcinoma exists. Its action is to remove putrescent food, combat hyperacidity, and relieve the stomach in a mechanical as well as chemical sense. It controls pain, increases the appetite, regulates the action of the bowels, and has a curative action on the ulcerated

surface. Soft tubes, only, should be used.—*New Yorker medizinische Presse*, July, 1888.

The Treatment of Bronchial Asthma.—According to DR. WILLIAMS, we must consider the following in the treatment of this affection: First. To counteract, if possible, the tendency to asthmatic attacks, which arise generally from some definite lesion, the result of a former inflammatory affection. Second. To allay the asthmatic spasm by reducing the sensibility of the pulmonary nerve plexus. In dealing with the first, according to Salter, no less than 80 per cent. of asthma is traceable to bronchial inflammation in childhood. This inflammation leads to a swelling of the bronchial glands, which, owing to their proximity to the pneumogastric nerves, must compress the latter. Swelling of the bronchial glands is detected by dullness in the interscapular or suprascapular regions. He attributes the good effects observed after the administration of the iodine preparations, to their action in reducing the swollen bronchial glands. Iodide of potassium is more effective in doses of from gr. viii to gr. xv, and large doses do not increase the risk of iodism, provided plenty of water be taken at the same time. Iodide of sodium may be substituted for the iodide of potassium, but the dose is smaller (about 5 gr.), and a combination of the two iodides is often desirable. Mineral waters containing iodine have a favorable effect on asthma, but are slower in their action. Such are the Woodhall and the Burton in England, and the waters of Kreuznach in Germany. The inunction of iodine ointment, or painting the skin with the tincture, has never produced the same therapeutic effect on the asthmatic attack. Free sponging in a bath with tepid or cold water every morning, to which sea salt may be added, and a careful dietary assist the treatment. The treatment of the attack is directed to the administration of anti-spasmodics, which may be classified as stimulant and sedative. To the former belong brandy, whisky, hot coffee, spiritus etheris (in drachm doses) and inhalation of nitrite of amyl. The sedative class includes belladonna, stramonium, etc. These are more efficacious when taken by the stomach or hypodermically, although by smoking them in the form of cigarettes, temporary relief may be obtained. A useful formula is the following:—

℞.—Potassii Iodidi, ℥ii to ℥iii.
Tinct. Stramonii, ℥ii to ℥iii.
Syrupi Scillæ, ℥i.
Extract. Glycyrrh., ℥i.
Aquam, ad ℥viii.

Sig.—A tablespoonful in a wineglass of water, three times a day.

Chloral is one of the safest and best sedatives during the attack. A dose at bedtime will often enable an asthmatic to sleep through slight early morning seizures, and this medicine will, if pushed strongly, control the asthma. When the paroxysm is very severe, chloroform or ether or iodide of ethyl (m. ii to m. v) may be inhaled. Morphine, hypodermically may be used when the patient can neither swallow nor inhale. Aero-therapeutics, climate and dietary are also considered.—*American Journal of the Medical Sciences*, August, 1888.

Sacramento Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: SEPTEMBER, 1888.

THE TRANSACTIONS OF THE STATE SOCIETY.

The annual volume of transactions has appeared, and at an earlier date than has been the rule. In some respects it is an improvement on that for 1887, the change of type and some attention on the part of the committee having cut it down by almost one hundred pages. One paper still occupies forty-six pages, though the author states that the scissors have been ruthlessly applied to a large portion thereof. The committee complains, as its predecessors have murmured, at the unnecessary amount of correspondence in connection with papers and reprints. This could be obviated if the authors would hand the manuscript to the Secretary during the session at which it has been read, marking the number of reprints required over the signature. Regarding the furnishing of proof for correction, we believe it to be, as a rule, ill-advised and contrary to the interests of the Society; unless the cost of corrections, other than typographical, be borne by the author. Compliance with these suggestions would enable the transactions to appear at least six weeks earlier than at present. The work has been well and cheaply done, and the thanks of the Society are due to its efficient committee and the energetic chairman, Dr. G. F. G. Morgan.

As this journal has persistently advocated the publication of the transactions by the Society, and in volume form, we may briefly compare the present condition of affairs with that now happily passed. In 1885 and 1886 the proceedings were published in journal form, at considerable expense to the Society, the publication not being completed until the month of December of the respective years. In this disjointed form they were useless for exchange or binding, though through the generosity of the publisher this was,

in the latter year, obviated. A word as to the financial aspect: At the meeting of 1887 the Society was in debt $150; in April, 1888, the Treasurer reported a balance of $742.75 to its credit, and we understand that there is now on hand $1,400. At the session of 1887 the Society elected thirty-two members, and at the session of 1888, sixty-two. We have made this detailed statement because our conduct in the past has been rather sharply criticized, and it has even been insinuated that our objects were other than those demanded by the best interests of the Society. Assured of the rectitude of our course we persevered, and it now seems that the views of the "small clique" in Sacramento were really those of a majority of the Society. In conclusion, the Society has a handsome balance to its credit, the transactions have been published in less than three months from the annual meeting, and, for the first time since its organization, a full report of the proceedings and of the *discussions* was in the hands of every member within twelve days from the date of adjournment. This report also appeared in the *Southern California Practitioner* and the *Journal of the American Medical Association*, being thus read by 10,000 physicians and reaching every important medical journal in the civilized world. This was accomplished without expense to the Society. The Committee on Publication has seen fit to utilize our report in the transactions—a privilege which was gladly and gratuitously granted. That the best interests of the Society shall ever be our interests we are well assured, for the staff of THE MEDICAL TIMES were workers in the good cause long before the existence of that journal.

NOTES.

Corrigendum.

Owing to a typographical error the following committees have been omitted from the list as published in the transactions of the State Society: Necrology, Medical Legislation, Graduating Exercises, and the Special Committee on Organization of County and District Societies. Slips containing the names of the committees have been forwarded to members of the Society.

Certificates of Membership.

Certificates of membership in the State Society have been sent by mail to all new members. Any member failing to receive his certificate should notify the Secretary, Dr. Wm. Watt Kerr, 522 Sutter street, San Francisco.

A New Medical Register.

The Board of Examiners has determined to publish the fourth edition of the Medical Register, which will appear early in 1889. This is a matter in which every legally qualified practitioner has a personal interest, and we trust that members of the profession will assist the Secretary of the Board by filling out and promptly returning the blanks which will reach them. Upon this the accuracy of the Register largely depends, and neglect on the part of correspondents is hardly excusable. We understand that out of 300 inquiries sent to medical men representing towns and districts, but 50 replies have been received. Of 1200 circulars mailed to doctors and postmasters, 500 have been returned. A stamped envelope, for reply, accompanied each communication. These figures are very discreditable to the profession, and discouraging to the Board.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting July 17, 1888.

The President, J. R. LAINE, M. D., in the Chair.

New Member.—W. F. WIARD, M. D., was duly elected a member of the Society.

DR. J. R. LAINE read a paper on the subject of *Cremation.*

DR. W. R. CLUNESS, in opening the discussion, said that while he agreed with the sentiments of the paper, he did not believe that they would be carried out now, nor in the near future. Earth burial was very deleterious to the living, but the sentimental feeling of humanity would rebel against cremation. Personally, he felt that while he knew it was the best method, he was aware that no combination of circumstances could induce him to adopt it in the case of a relative.

DR. G. L. SIMMONS thought that the question of soil pollution, brought about by the decomposition of human bodies, was one of great importance. He alluded to a well in London (Eng.), the water from which was noted for its sparkling appearance, while it was subsequently ascertained that this well was really in an old grave yard. He believed, however, it would be long before cremation was adopted in the face of the prevailing public sentiment.

DR. W. A. BRIGGS confessed to a similar sentimentality. While his reason would induce him to advocate cremation, he felt that in the case of a near relative or friend he should not be disposed to adopt it. This, no doubt, was prejudice, in part religious, and common to all Christian people. He had no doubt but in time the feeling would grow less strong. He believed that when the population of the earth increased to a great extent and the evils of earth burial became more manifest, these religious

scruples would be gradually withdrawn and cremation would become the popular method of disposing of the dead.

Dr. T. A. Snider thought that the author had shown conclusively that cremation was the best method, but he believed that it would be long before it was adopted to any considerable extent.

Dr. W. E. Briggs had not the prejudice against cremation which had been expressed by other members of the Society. He would prefer to have a friend or a relative placed in a crematory rather than in the ground. He predicted that the feeling of prejudice and superstition would ultimately wear away.

Dr. T. W. Huntington believed that the discussion of a scientific subject should be lifted beyond the plane of sentiment and personal prejudice, though he admitted that in this case it was somewhat different. The only proper method of disposing of dead matter was by fire. Personally, he had none of that prejudice against cremation which some speakers had expressed. He thought that the time was not far distant when cremation would be generally adopted. Medical men should discuss the subject more freely.

Dr. H. L. Nichols said that the arguments in favor of cremation were unanswerable except on the grounds of prejudice and superstition. He felt that he was not entirely free from these. As far as the cremation of dead animals and offal was concerned, he had always advocated it, and he hoped that before long it would be in practical operation in this city.

The President said with reference to the burial of offal being as urgent as the burial of human bodies, he did not believe that the necessity was so great. The former were usually healthy bodies and scavengers were plentiful. In this way they were quickly disposed of. Human bodies were closely crowded together in one place to the detriment of the living. The question has been asked whether cremation would not interfere with the resurrection of the body. It would here be pertinent to enquire what would become of the mortal remains of the early Christian martyrs. Formerly, cremation was the usual method, and the change was no doubt brought about by the early Christians, perhaps because there was a possibility of the bodies being eaten subsequent to the cooking process.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting May 22, 1888.

The President, J. D. Arnold, M. D., in the Chair.

Bacillus Lepra. Dr. J. H. Stallard exhibited several microscopic preparations of the leprosy bacillus.

Dr. Henry Gibbons, Jr., read a paper entitled *A Plea for the Stomach.*

Dr. J. H. Stallard: Considered milk not a proper diet for adults, as it is not capable of meeting the requirements of adult life. The amount of food taken should be proportioned, not to the digestive capacity, but to the waste of the body. Overfeeding is the rule, and not the exception. He considered two full meals sufficient to maintain health. He found by experience that two pints of liquid and 23 ozs. of food was sufficient to maintain his health and weight during a busy period of his life. The stomach should have a rest before each meal.

Dr. W. P. Gibbons, of Alameda, advocates milk diet, pure milk, of course, and not the adulterated milk of cities. He cited a local epidemic of diarrhea among children which he discovered to be due to the fact that the cows supplying the milk browsed upon the leaves of the poison oak.

DR. N. J. MARTINACHE lays great stress upon the influence of the condition of the stomach in eye and ear diseases. He cited a case of blepharitis ciliaris treated successfully by careful attention to diet. Three times a day he considered sufficient for children of two years and over to take food.

DR. M. M. CHIPMAN believed that a better acquaintance with the functions and requirements of the stomach by the general public would make a great advance in public hygiene. A period of fasting is beneficial between meals. More or less derangement of the stomach will cause certain articles of food to disagree, which at other times might be perfectly acceptable. He hoped the time would come when the people would understand anatomy and physiology sufficiently to take care of themselves.

DR. G. F. G. MORGAN said he had frequently found the connections of feeding bottles to conceal tyrotoxicon in appreciable quantities, which might often account for symptoms of digestive disturbances in infants fed by artificial means.

THE PRESIDENT said he considered all excess of food above the actual requirements of the system an unnecessary tax upon the vital energies.

DR. HENRY GIBBONS, JR., was of the opinion that the stomach could not be reduced to the basis of a chemical laboratory and that all could not be reduced to one rule. Some required more food than others in order to effect the same weight of assimilation, and each individual case established its own rule. A fast is not always desirable, and the stomach should have food whenever hunger calls for it.

SPECIAL CORRESPONDENCE.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Cataract Operations Without Iridectomy—Inoculated Tetanus—A Peculiar Case of Eclampsia—Papilloma of the Vagina in a Child.

At a recent meeting of the Imperial Royal Society of Physicians of Vienna, Dr. Rosenfeld made the following communication. It was known that a large number of oculists had abandoned the method of linear extraction according to Gräfe and had directed greater attention to the flap operation performed with a simultaneous or preceding iridectomy. The case brought before the Society was one in which iridectomy had not been resorted to. The patient had suffered from disturbances of vision for half a year and was unaware of the cause of this condition. He had also suffered from rheumatism. On admission to the hospital, a quite mature cataract was detected in the right eye; perception of light was present, and on the left side there was hypermetropia. The flap operation was performed, the base of the flap being 10 to 11 mm. by 4 mm. in depth. The nucleus of the cataract was easily removed. After the operation eserine was instilled; on the third day the dressing was changed and atropine was instilled; recovery followed without any reaction. Later on, the secondary cataract was operated upon by discission. On examination with the ophthalmoscope, small particles of capsule were discovered at the inner and lower side of the eye, and the fundus could be distinctly seen. As this was the first case which had been operated on in this way, Dr. Rosenfeld had brought it before the Society to encourage

oculists toward further experimentation. Prof. Fuchs said that the question of performing an operation for cataract, with or without a simultaneous iridectomy, had been often discussed. Since the introduction of Gräfe's method, the upper portion of the iris had been excised. The plan of leaving the iris intact had cosmetic advantages on account of the coloboma. The French were the first to recommend the operation for cataract without iridectomy. At the last Congress of Ophthalmology at Heidelberg, he had the opportunity of hearing the different opinions on this subject, and the result was that the operation without iridectomy was not reliable as it gave rise to incarceration of the iris. It was also stated that the powers of vision were not improved by this method. The only reason that could induce him to exchange a reliable operation for one less so, was the prospect of improved vision. This, however, was not established. Prof. v. Reuss said that when either of these operations were performed on both eyes it was evident that the patients felt no difference in the power of vision The surgeon only had a certain satisfaction in seeing an artificial pupil; this, however, was quite indifferent to the patient. He was in favor of the old method. Dr. Adler said that he had abandoned the method of linear extraction for some years. He had operated by the flap method more than one hundred times in private practice and in sixty-eight cases in hospital without an unfavorable result. He would not abandon this method. As to the omission of an iridectomy he agreed with the other speakers. Dr. Bergmeister remarked that the majority of oculists were convinced that an iridectomy was a *malum necessarium*, but the fact that the average success was raised by it, proved that it was a *malum* with good success.

Dr. v. Eiselsberg, assistant to Prof. Billroth, showed a rabbit which exhibited the typical symptoms of tetanus due to inoculation. The virus was derived from the following case. A woman 40 years old had injured her hand while washing a floor in November, 1885, a splinter penetrating the palmar surface. Her husband was only partially successful in his attempts to extract it. During the second week after the lesion, a phlegmonous process supervened which required several incisions. On the twelfth day trismus, and cramps in the injured extremity appeared, and on the following days there was a quite characteristic tetanus of a severe form. The fistulæ which remained from the incisions showed no tendency to heal. The cause of this was found in the presence of a piece of wood 2½ cm. in length, which had remained in the wound and was not extracted until February, 1886. From that time the patient had felt quite well. Some particles of the piece of wood thus removed—which had been preserved by the woman for 2½ years—were, on April 28th, 1888, inserted under the skins of two rabbits. On the second day after the inoculation one of the rabbits was seized with tetanus and died on the fifth day. The second rabbit had survived, and was shown to the Society. It presented distinct symptoms of inoculated tetanus, such as trismus, increased reflex irritability, pleurosthotonos, etc. Dr. v. Eiselsberg said that at a later period he would give an account of his further experiments on the etiology of tetanus.

Prof. Gustavus Braun read the following paper before the Society of Physicians of Vienna. A woman 28 years old was admitted into his clinic (clinic of obstetrics) with the following history. She became pregnant for the third time at the end of August, 1887. Previous to this she had suffered from fainting fits, with loss of consciousness, which subsided on irritation of the skin. At the clinic of Professor v. Schrötter, where the patient had previously been treated, a typical eclamptic attack of over five minutes' duration was observed. Her condition on admission to Prof. Braun's clinic was as follows. She was in a state of stupor and pale, pulse about 68 a minute and feeble, respiration regular, pupils did not

react to light. There was some bloody foam on the lips, the lower lip and margins of the tongue had been bitten. Reaction of the skin on irritation was slight, sensibility and mobility of the extremities normal, the urine contained large quantities of albumin and a few casts. The pregnancy was of the seventh month; no heart sounds were audible. An examination revealed the presence of a dilated vulva and vagina, the cervix was 1 ½ cm. in length and was permeable for two fingers. At five o'clock that evening it was determined to deliver artificially, and 2 gm. of chloral were injected into the rectum. At 6:30 P. M. the pulse was thread-like and the patient collapsed. Version by Braxton Hicks' method was at once performed, and a dead fetus weighing 1,500 gm. and 35 cm. in length was extracted. During the operation the patient collapsed more and more and the respiration became irregular. Artificial respiration was maintained for one hour with hypodermic injections of ether, camphor, etc., but, in spite of treatment, the patient succumbed to acute edema of the lungs. Dr. Paltauf, in describing the autopsy, said that there was an extensive hemorrhage under the hepatic capsule which was torn. There was blood in the cavity of the abdomen and that condition of the liver which Virchow calls "hepatitis hemorrhagica" was present. He was of the opinion that the inflammatory changes in the interlobular veins, the dilatations of the capillaries, the hemorrhages, the necrotic processes and infarcts were not of a parasitic infectious character, but were due to intoxication. The rupture of the liver and the hemorrhage, were regarded as the effects of the movements at artificial respiration, and were explained by the advanced affection of the hepatic parenchyma. Prof. Kundrat remarked that he had observed a rupture of a fatty infiltrated liver, due to movements at artificial respiration, in an old woman suffering from marasmus. Prof. G. Braun said that during the life of the patient it was quite impossible to recognize this condition of the liver. The skin was, indeed, very pale, but there were no other characteristic signs. It seemed that after the expulsion of the placenta the abdomen had a peculiar feeling, but this was not at all sufficient to establish a diagnosis of internal hemorrhage from the liver. It rather created the impression that the uterus had been torn. This supposition was negatived by the fact that no blood had escaped externally and examination showed that the parts were normal. Prof. v. Bamberger said that there could be no doubt that the case was one of intoxication. The hemorrhage and the changes in the blood vessels supported this supposition. In Virchow's case there was a similar condition present in the liver. It was a case of mussel poisoning, and it was remarkable that the poison was found only in the liver. In a case of phosphorous poisoning at his clinic, there were similar hemorrhages and congestions in the liver, kidneys and heart. There was engorgement of the blood vessels to a degree equalling that met with in subjects injected for anatomical purposes. This condition accounted for the numerous hemorrhages. He had recently observed a case of poisoning by phosphorous in which there was no engorgement of the blood vessels. This might, however, be explained by the fact that the autopsy had been made at a late period.

Dr. Schustler showed a case of papilloma of the vagina in a child four years old. Her parents were healthy and she had been quite well until four months ago. Since then she had suffered from vaginal blenorrhea. Two months ago the mother observed that several small tumors protruded from the vagina of the child when she cried. These polypi were ligated and removed. Subsequently a tumor the size of a nut protruded through the hymen but could be readily replaced. On introducing the finger it was found that the tumor was attached to the anterior wall of the vagina and that several other tumors lay behind it, and were attached to the vesico-vaginal septum. Four days ago the tumors became ulcerated and bleeding occurred; except for this and the profuse blenorrhagia, the

child felt well. Later, dysuria supervened; this was a symptom met with in these cases. The exact nature of the tumors would be elucidated by microscopical examination after extirpation. Two varieties of tumors might be considered in this case, namely, fibroma and sarcoma; both had only rarely been observed in the vaginæ of children. Prof. Breisky, who had written on the diseases of the vagina in the work of Billroth and Luecke, stated that only six cases of sarcoma of the vagina in children were recorded. In four of these cases the tumor was attached to the anterior wall.

VIENNA, August 1st, 1888.

CENTRAL AMERICA.

Drug Stores and Doctors.—Prevailing Diseases.—Water Supply.—The Canal Company's Sanitary Service.—Primitive Funerals.

The traveler in Central American cities and towns cannot fail to notice the large number of drug stores. No other business seems so well represented nor its stores so prosperous looking. The Central American feels that drugs are his safeguards, and he is liberal in his patronage, even when the medicines are not exactly necessary to his well-being. As a rule, here as elsewhere, the more limited in knowlege the patient, the greater dabbler in medicine does he prove to be; and I am told, on the best of authority, that it is mainly upon this class of persons that the drug stores thrive. Patent medicines are largely used. In Mazatlan, Mexico, and on the Isthmus, the stores are especially well provided with this line of goods.

Doctors in Central America are not, as a rule, associated in the ownership of the drug stores. They have their preferences and send their prescriptions to their particular druggists. The physicians consist almost entirely of natives, foreign practitioners being quite limited in numbers. San Salvador, a city of 30,000 inhabitants, has but one foreign physician, a German. So it is with the other cities of these Republics; but the native physicians as a class are well educated. The majority have received their preliminary training in their own country, and have finished their studies in the Old World—usually Spain. Contrary to the American system of fees, the Central American doctor receives a yearly stipend for keeping his client well. The amount varies, according to circumstances, from $200 to $500, equivalent in our money to $150 to $400 Poorer patients, of course, in the same ratio. The doctor attends in sickness and in health—truly the friend of his patient. Should the latter die during the year, the money is refunded *pro rata*. Visits are made on foot; or, in the larger cities, the tramway facilitates the doctor's calls. The physician in Central America who keeps his carriage and pair, is a novelty indeed. Concerning prevalent diseases in the Guatemalan Republic, though less so in Salvador, Nicaraugua, Honduras and Costa Rica, tape-worm and goitre are very common. At present, in the city of Guatemala, a so-called "Tape-worm Specialist" is reaping a rich harvest. He has the reputation of telling at a glance the subject of a tape-worm, and by close inspection of the eyes can accurately (?) predict the length of the parasite. From descriptions of the medicine used, I am led to believe that he depends for its removal on the French preparation of pomegranate—Tanret's pelleterine. He charges, and collects in advance, from $50 to $100 for a complete cure, and, as I have said, does a lucrative business. The water supply there is noticeably bad, and this no doubt has some bearing on the presence of so many cases of tape-worm. For goitre, the "let alone" treatment seems to be in vogue, and wonderful recoveries result—so they say. Several young American dentists, recent graduates, are doing very well in this same Republic. They announce themselves for some days pre-

vious to their visit to the town, and on arriving find plenty of work on hand for them.

The water supply in most of the cities and villages is very imperfect. Mazatlan, with 30,000 inhabitants, depends wholly on the rain. The roofs are of tiles and the water is conducted into huge cisterns beneath the inner courts in the Mexican houses. At the time of my visit there had been a drought. Everything lacked water, and what there was of it in the house cisterns sold readily at 25 cents a gallon. Acapulco, not quite so thickly populated, is better off for water, having a series of public wells; but the stenches from their vicinity does not add to the value of the water. Guatemala, of 80,000 souls, in the Republic of that name, receives its supply from the mountains through a stone aqueduct. The water has a perceptible taste, and the numerous cases of tape-worm and goitre do not attest its superiority. The other cities and towns depend mostly on the rain.

If the water-supply is bad, the odors which arise, especially from the port towns, is insufferably worse. The rich vegetation, animal matter, and human excreta, all mingled together, even in the streets of the seaport towns—Acajutla, Acapulco and Corinto—gives a stench that "smells to heaven." Drainage is very imperfectly attempted—often not at all. Guatemala has very small, covered gutters, in the middle of the streets and just below the surface. As a rule they are thoroughly blocked, or too small to be of use; so that in the end dependence is mostly placed upon the "sewers of Central America," as they are aptly called. These are the carrion crows or vultures who greedily consume all decaying material, gorging themselves upon it. They are protected by law and by the people who recognize their great value to mankind, and this immunity from harm makes them exceedingly bold. Even a stranger can approach and almost touch them, so thoroughly safe do they feel.

The diet of the natives is of the simplest character. Frijoles, nigra or black beans, coffee without milk or sugar, into which stale bread is broken, and plantains or bananas, comprises their daily fare. Not infrequently we met natives who never taste meat, and to whom milk is an unheard of luxury.

Foreigners before becoming acclimated suffer greatly with digestive trouble and fevers; the natives to a less extent. In Panama it is the fever, which is the most dreaded. For each foot of progress on the canal a life is said to have been sacrificed. The first work of the Panama Canal Company was the erection of a hospital; and on the heights, a mile from Panama, the buildings can be plainly seen. The hospital is on the plan of a series of connecting wards, and the accommodations are superior. Immediately the fever seizes the canal workman, he is sent to this hospital. As convalescence is established he is moved to the Island Hospital, or home for convalescents, on one of the beautiful little islands which dot Panama Bay. Thus the former great terror of the Isthmus has been almost removed. The immense numbers at work, and seeking work, on the canal attest this fact. The natives, and even the ignorant Jamaica negroes, appreciate the importance of bringing on a sweat in the Panama fever, and a decoction of a sour orange, which grows wild throughout the Isthmus, has great repute as a medicine for that purpose. Among physicians the main reliance is placed on quinine, which is given in heroic doses. Venereal disease has made great havoc among the ignorant classes of Central America. Especially the negroes along the canal show the ravages of syphilis. As marriage there is almost unheard of, the spread of this dread disease is unlimited. Gonorrhea, as may well be imagined, is quite prevalent. The natives use, and quite successfully in the gleety stage, the milk of the cocoanut. It neutralizes the urine and acts as a demulcent.

The poorer classes of these Republics are all a careless, happy people.

Their religion is Catholic. They die at peace with themselves and all the world; yet, often without enough money to bury them. The rites are very simple in such cases. Their bodies are carried on a board litter, a hole is scooped in the sand of the beach, and they are soon covered and out of sight. The value of life is so lowly estimated that the friends now and then carry even the living to the grave; but there the corpse(?) usually musters strengh enough to protest, and he is taken home again, to live or die, it matters little to them. Monkey Hill, one and one-half miles from Aspinwall, is a noted place for such burials. The time is not far passed when people died too rapidly for coffins to be supplied, so one served to carry the dead to the grave, from whence it was returned to do similar service again, the bodies being buried without coffins.

G. L. Simmons, Jr.

August 2, 1888.

BRITISH MEDICAL ASSOCIATION.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

The City of Glasgow.—The President's Address.—The Address in Medicine.—The Address in Surgery.—Macewen on the Surgery of the Brain and Spinal Cord.—The Address in Physiology.—The Festivities.—The Event of the Meeting.

An English traveler describing Glasgow at the end of the seventeenth century gave it the palm among the towns of Scotland, and Defoe called it "one of the cleanliest, most beautiful, and best built cities in Great Britain." Defoe would have used far different terms if he had visited the commercial capital of Scotland in this year of grace. Wealthy, enterprising, industrious, but—clean or well built! No.

Glasgow, however, is something more than a large, rich and pushing commercial city, for it contains an ancient university, founded in 1450, upon the model of the University of Bologna. One of the most important faculties of Glasgow University is the medical. The British Medical Association, which commenced its fifty-sixth annual meeting in Glasgow on August 7th, was welcomed by the Professor of Medicine in the University, Dr. W. T. Gairdner, after hearing a sermon in St. Mungo's Cathedral from the very Rev. J. Caird, D.D., Principal of the University. Professor Gairdner thundered against "obscurantism in education," and will consequently never be forgiven by certain sections of the profession. That is to say, the two extremes; on the one hand the men to whom Latin, and Greek, and dilletanteeism are dearer than clinical experience, and who affect to sneer at modern pathology and modern surgery, and on the other the men who claim to be practical men, who sneer at Latin and Greek, and pathology indifferently, and think that success in life is to be gained only by what *Punch* called "a good bedside manner," and by cultivating the art of compounding palatable mixtures for slight ailment. Not that Professor Gairdner wants to bind down the general boy, or the specialized student, to books or theorizing. On the contrary, he says that our present programme of school discipline is still too largely founded on the idea that at six or seven years old, a child may be withdrawn in a great measure from the strictly natural, wholesome and all round education of the faculties to have his nose buried for ten long years in books and papers and mental arithmetic, till his eyes became myopic and his little brain suffered a corresponding deformity.

The address on medicine was given by Dr. Clifford Allbutt, F.R.S., the leading physician of the important manufacturing town of Leeds, and was mainly directed to urging upon the profession a more philosophical method in nosology. We ought not, he argued, to be satisfied with clas-

sification founded upon symptoms and morbid anatomy, but should look into the relations of diseases to each other, and the relation of human diseases to those of the other animals. It would seem, however, that we cannot have a scientific system of comparative pathology until comparative physiology has reached a more advanced stage. Dr. Allbutt himself quoted a variant of a well known phrase, which he said he was accustomed to use in speaking to his advanced students: *Nihil in pathologia quod non prius in physiologia.*

Sir George Macleod's general address in surgery was one more "jubilee oration," let us hope the last. He gave a sketch of the advance of surgery during the last half century, able in its way, but everybody has grown a little tired of hearing about the beneficent discovery of chloroform, the triumphs of the antiseptic system, the beauty of drainage, and so on. This address was given on Thursday afternoon, and more interest had been excited in the morning by Dr. Macewen, Lecturer on Surgery to the Royal Infirmary, Glasgow, who gave a most brilliant address to the whole Association, on the surgery of the brain and spinal cord. The first case in which he had operated for intracranial lesion, being led to the diagnosis by localizing symptoms alone, occurred so long ago as 1879, and since then he has had a series of twenty-one cases, excluding fractures of the skull or other immediate effects of injury. Three of these cases were *in extremis* when operated on; all the others recovered. This is a remarkable record, and entitles Dr. Macewen to speak with some authority on the selection of cases. Subdural cysts appear to be the most favorable, these are commonly of traumatic origin; secondly, tumors of the dura mater; thirdly, abcesses, if of moderate dimensions and treated early; and fourthly, tumors of the cerebrum. The removal of these last, which involves the excision of a wedge of brain, leaves permanent and hopeless hemiplegia, and very great danger of what Dr. Macewen calls anchoring of the brain; *i. e.*, its fixation by cicatricial tissue to the cranium. As a consequence of this fixation each variation in the bulk or movement of the brain causes a dragging, resulting in vertigo and epilepsy. He also related six cases in which he had operated on the spinal column, with two deaths; one from acute tuberculosis several months after the operation, the other within a week. Two cases which he related at length were extremely striking. Both were children with complete paraplegia, and incontinence of urine and feces, and wasting and lividity of the lower limbs, due to angular curvature with ankylosis of vertebræ and connective tissue growths pressing on the cord. Both cases appeared well nigh hopeless. The laminæ of the fifth and sixth dorsal vertebræ were removed, and the mass of connective tissue between the theca and the bone removed. In both improvement began at once, the first change being disappearance of the lividity of the limbs. In time both children recovered the power of walking; one, a boy, being able to go to school and play football. Dr. Macewen warns against operating when there is any fever, or has recently been.

The address in physiology, given by Dr. J. G. McKendrick, Professor of the Institutes of Medicine (*i. e.*, physiology) in the University of Glasgow, was on the function of respiration and the gaseous constituents of the blood. He gave a sketch of the gradual growth of knowledge from the time of Borelli, Boyle, Malpighi and Hooke to the very latest new theory of Fleischl v. Marxon, of Vienna. This address was illustrated by experiments, and by the exhibition and demonstration of a new mercurial vacuum pump. He incidentally presented one of those curious calculations which physiologists sometimes make to impress the non-physiological mind. He wished to emphasize the enormous absorptive surface for oxygen which the red blood corpuscles present. The number of corpuscles in the blood of a man of ordinary size he estimated at over twenty-two trillions; a statement which conveys absolutely no idea, beyond a general

idea of an immense number, to the human mind. The area of each corpuscle is, however, known, and a simple calculation gives the result that the total superficial area of all the red corpuscles of an ordinary man is about 3,151 square yards; or nearly three-quarters of an acre!

As to the festivities of the meeting, perhaps the less said the better. The weather has not been exactly genial; a good deal of rain has fallen and the winds have been un-summerlike. With the best intentions, the Glaswegians have not been very hospitable. The Lord Provost (*i. e.*, Mayor) and corporation gave an entertainment in the exhibition (some fireworks are being let off as I write), and this has been, perhaps, the best managed social event. The Professors' *Conversazione* in the university was a most dismal failure. The struggle into the refreshment room, to find plain cake and lemonade, and the struggle for coats and hats were not pleasures; indeed, there was very nearly a panic in the cloak room. The dinner in St. Andrew's Hotel was well done, but the speeches! The Church was supreme, and four sermons in succession was more than any one could stand, even after dinner.

The event of the meeting was Macewen's reception; the whole audience rose and cheered at the end of his address. Such an ovation is unprecedented within the memory of the oldest frequenter of the association meetings.

Glasgow, August 11, 1888.

PUBLIC HEALTH.

By W. R. Cluness, M. A., M. D., Sacramento, Cal.

Mortality.—The deaths registered in 71 town districts of the State during the past month, in a population of 712,500, correspond to an annual rate of 16.16 a thousand, the total mortality having been 960. One hundred and ninety-eight deaths were due to zymotic diseases, giving an annual rate of 3.33. Of these 60 resulted from cholera infantum, 20 from diarrhea and dysentery, 37 from diphtheria, 35 from typhoid fever, 12 from cerebro-spinal fever, 13 from whooping cough and 7 from scarlet fever. 206 deaths were referred to diseases of the respiratory organs, giving an annual rate of 3.47. Of these 137 resulted from consumption, 46 from pneumonia, 16 from acute bronchitis and 7 from pulmonary congestion. The average annual death rate, from all causes, occurring in the ten largest cities and towns in the State and representing a population of 558,000, was 16.42. The highest death rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco, it having been 20.76; the lowest was reported from Stockton and Los Angeles, the rate having been just 7.20 a thousand in each city.

METEOROLOGY.

By J. W. Robertson, B. A., M. D., Assistant Physician to the State Asylum for Insane, Napa, Cal.

Rainfall.—As usual during the month of July, the rainfall was light. Along the coast of Northern California, above Cape Mendocino, there were heavy showers, but south of that point the majority of stations report but a trace.

Temperature.—Along the Coast belt the mean temperature has been very moderate, ranging from 56 at Eureka to 59 at San Francisco, and rising to 67 at San Diego. Extremely warm weather was noted at Yuma, Fresno, Red Bluff and other places too far inland to be modified by the cool coast breeze.

California—Tabular Statement for July, 1888.

STATIONS.	Temperature. Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	Rainfall. No. of Rain Fell	Total Rainfall	Mean Relative Humidity	Weather. No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Wind. Prevailing Direction.	Furnished by—
Auburn .....Cal.	76.5	101.0	54.0	.....	.....	.....	.....	0.00	.....	.....	.....	.....	S.	Southern Pacific Co.
Colfax..... "	75.0	102.0	54.0	.....	.....	.....	.....	0.00	.....	.....	.....	.....	N.	" " "
Eureka..... "	56.5	73.0	48.4	62.6	53.3	93.0	7	0.44	.....	.....	.....	.....	N.	Signal Service U.S.A.
Fresno..... "	80.6	109.2	53.5	99.5	63.9	35.6	3	trace	.....	.....	.....	.....	NW.	" " "
Keeler..... "	79.3	98.0	54.1	92.5	67.8	24.7	2	0.17	.....	21	6	4	E.	" " "
Los Angeles.... "	67.9	95.0	49.0	87.4	59.3	28.2	1	0.04	.....	.....	.....	.....	W.	" " "
Monterey ..... "	64.6	90.0	58.0	....	.....	.....	.....	0.00	.....	.....	.....	.....	SE.	Southern Pacific Co.
Napa..... .. "	65.1	91.0	46.0	76.1	54.1	22.0	1	0.03	.....	26	4	1	S.	Sta. Napa Ins. Asylum
Oakland..... "	62.2	91.0	52.0	.....	.....	12.7	0	0.00	83.9	15	15	1	SW.&W	J. B. Trembley, M.D.
Paso Robles.... "	73.5	100.6	53.0	... .	.. ..	.....	.....	0.00	.....	.....	.....	.....	W.	Southern Pacific Co.
Red Bluff..... "	80.9	109.0	53.9	96.7	65.7	31.0	2	0.07	.....	.. ..	.....	.....	S.	Signal Service U.S.A.
Sacramento. ... "	71.6	104.0	51.0	89.5	57.3	32.1	0	trace	.....	29	2	.....	S.	" " "
San Diego..... "	68.4	77.2	54.6	74.3	62.5	11.8	2	0.01	.....	23	4	4	NW.	" " "
San Francisco.. "	59.1	93.4	51.0	68.4	54.4	14.0	1	0.01	.....	9	18	4	SW.	" " "
Santa Barbara.. "	67.0	86.0	51.5	76.0	58.0	18.0	0	0.00	.....	27	2	2	E.	Hugh D. Vail.
Santa Cruz .. "	66.4	98.0	52.0	.....	.....	.....	.....	0.00	.....	.....	.....	.....	S.	Southern Pacific Co.
Yuma.....A. T.	90.4	113.7	63.0	106.5	76.4	30.1	3	0.04	.....	.....	.....	.....	S.	Signal Service U.S.A.

Blank (.....) indicates data missing.

Clear Day—One on which cloudiness is 3 or less on a scale of 10. Fair Day—One on which cloudiness is from 3 to 7.
Cloudy Day—One on which cloudiness is over 7.

REVIEWS AND NOTICES.

THIRD ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF MAINE, for the Fiscal Year ending December 31, 1887. Augusta: Burleigh & Flynt.

Three-fourths of this volume are occupied by the report of the Secretary and extracts from the reports of local Boards of Health, showing that much valuable work has been done. A very excellent paper on "Motives and Methods for Sewering Cities, Villages, Towns, and Summer Resorts, and for Domestic Sanitary Improvement, House Plumbing," etc., by G. C. Jordan, C. E., a member of the Board, deserves mention. It is well illustrated, and points out many of the every-day sources of air and water contamination in town and country.

DISEASES OF THE FEMALE URETHRA AND BLADDER, by I. Winckel, M.D., Professor of Obstetrics and Gynecology at the Royal University, Munich, and DISEASES OF THE VAGINA, by A. Breisky, M.D., Professor of Obstetrics and Gynecology at the Royal University, Vienna. Being Volume X of the Cyclopedia of Obstetrics and Gynecology. New York: Wm. Wood & Co. 1887.

This excellent volume is one of the most valuable of a valuable series. The first part, Diseases of the Female Urethra and Bladder, covers a neglected field in an admirable manner. The historical retrospect, although brief, is interesting, and repeatedly illustrates the old adage, *multa renoscentur*. The succeeding chapters are succinct, comprehensive, and practical. Diseases of the vagina are dealt with somewhat more at length, but in the same clear and practical manner. The chapter on inflammatory affections is especially satisfactory, illustrating as it does that German tendency to minuteness and systematisation which has been so fruitful of criticism and progress.

THE LANGUAGE OF MEDICINE. A manual of the origin, etymology, pronunciation and meaning of the technical terms found in medical literature. By F. R. Campbell, M. D., Professor of Materia Medica and Therapeutics, Medical Department of Niagara University. New York: D. Appleton & Co., 1888.

"A well educated gentleman," says Ruskin, "may not know many languages, but whatever language he knows he knows precisely; whatever word he pronounces he pronounces rightly. Above all, he is learned in the *peerage* of words; knows the words of true descent and ancient blood at a glance from words of modern canaille; remembers all their ancestry—their inter-marriages, distantest relationships, and the extent to which they were admitted and the offices they held among the national noblesse of words at any time and in any country." This breadth of knowledge and precision in the use of language is not a necessity of the artist, the litterateur only, but of the man of science also, and preëminently of the physician, and can be acquired only by diligent study of the current value of words and of their lineage. The genealogy of that "wonderful composite called English," as Lowell speaks of it, "the best result of the confusion of tongues," carries the student back to the fountain heads of the language, especially to the Greek, the Latin, the German and the French. Here he finds many a virile and prolific ancestor of whole families of English words, modified indeed by the infusion of new blood, but still retaining the characteristic features as well as the rank and the power of their first parents. But, unfortunately, in spite of that much vaunted,

but rarely administered specific known as preliminary examination, "small Latine and lesse Greeke" fall to the lot of the average medical student. To remedy this deficiency the author of "The Language of Medicine" has prepared the volume before us. It is admirably adapted to the purpose in view. Part 1, treating of the origin of the language of medicine, is instructive as well as entertaining. Part 2 presents the Latin element concisely, and in the chapters on orthoepy and words commonly mispronounced, the average physician no less than the average student, will find abundant food for rumination. The succeeding parts treat of the Greek and other foreign elements of medical language, and although the we began the examination of this work full of prejudice against it, we now recommend it with confidence to those physicians and medical students who have not the advantage of an earlier acquaintance with Greek and Latin, and who desire to know the language of medicine "precisely" and to pronounce it "rightly."

THE INFECTIOUS DISEASES. By Karl Liebermeister, Professor of Clinical Medicine in Tübingen, Germany. Translated by E. P. Hurd-M. D., with notes and appendices. Vols. I and II. Physician's Leisure Library Series. Detroit: Geo. S. Davis. Price, 25 cents; cloth, 50.

We have in two small volumes a succinct *résumè* of the infectious diseases, presented in that fascinating manner so characteristic of the thorough teacher. The appendices of the translator are valuable additions to the work. Contrary to the usual indifference manifested by German writers, the therapy of the diseases considered in this book receives more than the customary consideration. Liebermeister has always been a most enthusiastic advocate of the cold water treatment in typhoid fever, and the present work shows no abatement of this enthusiasm, notwithstanding the fact that this method of antipyresis is now being abandoned in Germany, the good results previously claimed having been proven by competent observers to be largely illusory.

BOOKS AND PAMPHLETS RECEIVED.

Antipyrine. By Benjamin Marshall, M. D., San Francisco. [Reprinted from the *Pacific Medical and Surgical Journal.*]

The Progress of Medicine Measured by the Progress of Therapeutics. By Sam'l. O. Lewis Potter, M. A., M. D., San Francisco. [Reprinted (in part) from the transactions, Medical Society, State of Cal.]

Abdominal Surgery. By Hal C. Wyman, M. S., M. D., Professor of Surgery and Operative Surgery, Michigan College of Medicine and Surgery, Surgeon Detroit Emergency Hospital, etc. Physicians Leisure Library Series. Detroit: George S. Davis. Paper, 25 cents; cloth, 50 cents.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At the regular meeting of the Board of Examiners, held August 1, 1888, the following physicians were granted certificates to practise medicine and surgery in this State:

T. Allen Barber, San Diego; M. Dep. Univ., City of New York, Mar. 12, '54.
Lafayette Bentley, Lugonia; Univ. of Trinity Coll., Canada, May 11, '81.

George Richard Bowles, Santa Rosa; M. Dep. St. Louis Univ., Mo., Mar. 3, '66.
James Patton Boyd, Santa Ana; M. Dep. Univ., City of New York, Feb. 18, '69.
William B. Bullard, Los Angeles; M. Dep. Bowdoin Coll., Me., May 25, '59.
William P. Cash, San Diego; Kentucky School of Med., Ky., June 30, '87.
David Dufresne, San Diego; Victoria Univ., Montreal, Canada.
Holman E. Ferrin, Watsonville; M. Dep. Univ. of Vermont, June 26, '82.
William N. Finney, San Bernardino; Missouri M. Coll., Mo., Mar. 5, '78.
Adam Franke, Linkville, Or.; Jefferson M. Coll., Penn., Mar. 9, '67.
Forrest B. Freeman, Gridley; M. Dep. Univ., City of New York, Mar. 13, '83.
John Locke Hardeman, San Diego; St. Louis M. Coll., Mo., Mar. 8, '78.
Alfred Wm. Harding, San Diego; Royal Coll of Surg., England, July 28, '70, and M. B. Univ. of London, Eng., Dec. 13, '71.
Henry M. Hewitt, Whittier; Rush M. Coll., Ill., Feb. 26, '78.
Frederick J. Kruell, Los Angeles; Rush M. Coll., Ill., Feb. 22, '81.
Jonah Nichols, West Point; M. Dep. Univ. of Virginia, June 29, '87.
J. D. Nietscke, Buckeye Valley; Memphis M. Coll., Tenn., Feb. 25, '52.
Robert S. B. O'Brien, San Francisco; McGill Univ., Canada, Mar. 28, '73.
Edwin T. Phillips, Los Angeles; Kansas City M. Coll., Mo., Mar. 6, '83.
Amos W. Plummer, Los Angeles; Jefferson M. Coll., Penn., Mar. 13, '80.
John A. Randolph, Willows; Missouri M. Coll., Mo., Mar. 4, '84.
James P. Richardson, Brentwood; M. Dep. Columbian Univ., D. C., Mar. 3, '68.
Joseph W. Rowan, Murietta; Univ. of Trinity Coll., Canada, Apr. 3, '88.
George B. Rowell, San Bernardino; McGill Univ., Canada, Mar. 29, '84, and Royal Coll. of Surg., England, July 24, '84, and Coll. of Phys. and Surg., Quebec, Canada, May 12, '86.
James C. Shafter, San Francisco; Coll. of Phys. and Surg., New York, Feb. 27, '73.
K. J. Slaughter, Oakdale; St. Louis Coll. of Phys. and Surg., Mo. Mar. 4, '84.
Wilbur Gray Smith, San Francisco; School of Med. of the Univ. of Maryland, Mar. 6, '80.
Francis W. Steddom, Los Angeles; Miami M. Coll., O., Mar. 9, '87.
William S. Wallace, Santa Rosa; Jefferson M. Coll., Penn., Mar. 12, '81.
Murray L. Johnson, Oakland; Cooper M. Coll., Cal., Nov. 17, '87.

Murray L. Johnson, of Oakland, was granted a license by this Board in December, 1887, and so recorded in this office; but the certificate having been made out in the name of Henry L. Johnson, it was returned and the record cancelled, and another issued as above. In February last Dr. Adam Franke, then a recent arrival from the East, presented his diploma to the Board on application for a license, and then departed in search of a location. Nothing further having been heard from him, the application was rejected at the July meeting, because the necessary affidavit, fee, and letter had not been received. Meanwhile Dr. Franke had located at Linkville, Or., where much of his practice extends into California. On the 28th of July he communicated with this office, explaining, and regretting his long non-completed application, asking that the action of the Board be reconsidered. The request was granted, and, upon presentation of all required evidence, the license was granted as above. The application of Edw. H. Griswold, of Los Angeles, was rejected because of insufficient credentials. The applications of J. H. Beauford, of Butte City, and J. E. Davison, of Woodland, being incomplete, were laid over. The application of J. L. Vaughan, of Lodi, on a diploma from the Memphis Institute (Eclectic), was withdrawn.

The Secretary reported progress on the fourth edition of the Medical Register, having 1,200 letters ready to mail to doctors and postmasters, asking names and locations of physicians in their vicinity. We hope the profession throughout the State will aid us in the work by promptly reporting their own names and those of their neighbors.

R. H. PLUMMER, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from July 16th to August 16th, 1888.

Major Robert H. White, Surgeon, is relieved from duty with Battalion 1st Inf. at Santa Barbara, Cal., and will proceed to Angel Island, Cal., on public business; on completion of which he will stand relieved from duty in this department. S. O. 43, Dept. California, July 17, 1888.

Assistant Surgeon Curtis E. Munn will proceed to Santa Barbara, Cal., and report to commanding officer of the 1st battalion Inf. for duty. S. O. No. 43, Dept. California, July 17, 1888.

Captain Joseph K. Corson, Assistant Surgeon, leave of absence for one month, with permission to apply for an extension of one month. S. O. No. 78, Dept. Columbia, July 13, 1888.

1st Lieut. Leonard Wood, Assistant Surgeon, is relieved from duty at Fort Huachuca, Ariz., to take effect at the expiration of his present leave of absence, and will report to the commanding officer at Fort McDowell, Ariz. S. O, No. 162, A. G. O., July 14, 1888.

Assistant Surgeon John J. Cochran will proceed to Benicia Barracks, Cal., on public duty; on completion of which he will return to these headquarters. S. O. No. 44, Dept. California, July 20, 1888.

Assistant Surgeon M. M. Walker to proceed to Benicia Barracks, Cal., and report to the commanding officer for temporary duty as medical officer at that post and at Benicia Arsenal, Cal. S. O. No. 45, Dept. California, July 24, 1888.

Major Egon A. Koerper, Surgeon, relieved from duty at Fort Keogh, Mont., and ordered to duty at Fort Walla Walla, Wash. Ter. S. O. No. 175, A. G. O., July 30, 1888.

1st Lieut. Leonard Wood, Assistant Surgeon, to proceed From Fort McDowell to San Carlos, Ariz., and carry out the instructions of the department commander; upon completion of that duty to return to proper station. S. O. No. 89, Dept. Arizona, August 1, 1888.

Assistant Surgeon Joseph K. Corson, leave of absence extended one month. S. O. No. 178, A. G. O., August 2, 1888.

Major John H. Janeway, Surgeon, granted leave of absence for one month on surgeon's certificate of disability. S. O. No. 41, Div. Pacific, August 8, 1888.

Official List of Changes in the Medical Corps, U. S. Navy (Pacific Station), from July 20th to August 20th, 1888.

Surgeon G. W. Woods, having completed his examination at Washington, D. C., for promotion to the grade of Medical Inspector, reported for duty at Mare Island, Cal., July 26th.

Surgeon C. H. White ordered to the "Trenton," and as Fleet Surgeon of the Pacific squadron, July 27th.

Medical Inspector Adrian Hudson, from the "Trenton," to return home to be examined for promotion, July 27th.

Assistant Surgeon E. W. Auzal, from the Marine Rendezvous, San

Francisco, ordered to the U. S. Naval School, Annapolis, Md., July 30th.

Assistant Surgeon William Martin, to the Marine Rendezvous, San Francisco, Cal., July 30th.

Passed Assistant Surgeon Hervey W. Whitaker, detached from "Mohican" and placed on waiting orders, August 10th.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (Division of the Pacific) for the three weeks ended August 20, 1888.

Surgeon Henry W. Sawtelle, detailed President of Board to select a site for quarantine station at San Diego, Cal.

Passed Assistant Surgeon A. H. Glennan, detailed as Recorder of Board to select a site for quarantine station at Port Townsend, W. T.

ITEMS.

Aiding the Law.—The Health Department of the city of San Diego is issuing, with its monthly report, a list of legally qualified practitioners in the city and county of San Diego, from whom only, burial permits can be obtained.

The Physician's Leisure Library.—Mr. George S. Davis announces that he will continue to issue the Physician's Leisure Library during the current year. From the names of authors which appear in the prospectus it is evident that the high standard of the series will be maintained.

An Army Medical Board will be convened in New York City, New York, October 1, 1888, for the examination of such persons as may be properly invited to present themselves before it as candidates for appointment in the medical corps of the army. Application for an invitation should be addressed to the Secretary of War, stating date and place of birth; place and State of permanent residence, and accompanied by certificates, based on personal acquaintance, from at least two persons of repute, as to citizenship, character, and moral habits. Testimonials as to professional standing, from the professors of the medical college from which the applicant graduated, are also desirable. The candidate must be between 21 and 28 years of age, and a graduate from a regular medical college, evidence of which, his diploma, must be submitted to the Board. Further information regarding the examinations, and their nature, may be obtained by addressing the Surgeon General, U. S. Army, Washington, D. C.

THE MEDICAL TIMES will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked.

Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers; of course not necessarily for publication.

All communications relating to this journal should be addressed to 429½ J street, Sacramento, Cal.

Sacramento Medical Times.

VOL. II. OCTOBER, 1888. No. 10.

A CLINICAL LECTURE,

By GEORGE JOHNSTON, M. D.,

Emeritus Professor of Clinical Medicine, King's College, London.

CHOLERA.

Gentlemen: The disease which I am about to discuss is called by various names according to its severity and to the place where it occurs: Cholera nostra, cholera Asiatica, cholera maligna, cholera asphyxiaus, etc. The last name has a particular significance in connection with certain facts which I desire to bring to your notice in the course of this lecture. I must not waste any time in preliminary remarks, for I have a great deal of ground to get over Cholera is always divided into three stages; first the premonitory diarrhea, without doubt an integral part of the disease, then a stage of collapse, the so-called algide stage, and finally the period of reaction either with or without consecutive fever. The main symptoms of choleraic collapse are coldness and blueness of the skin, cold sweats, great diminution of volume and force, and even complete extinction, of pulse, short, dry cough, sense of oppression, peculiar loss of voice, which becomes distant and shrill—the choleraic voice, as it is called—and precordial pain.

Cholera has prevailed in India from prehistoric times, but in England only since 1831–2. Before its appearance in this country the use of opium to relieve the diarrhea was unknown. Indian practitioners sometimes gave it to relieve the painful cramps, but they often prescribed purgatives at the same time. Certain practitioners, under the impression that the worst symptoms of collapse were due to loss of fluid, adopted the bold plan of injecting saline solutions into the veins. The symptoms of collapse disappeared in many instances as if by magic, but only to recur a short time after, and most of the patients so treated died. The effect of the injections in removing the symptoms of collapse was held to prove the correctness of the inference on which they were based, but on very erroneous grounds, as I shall show later on.

I first saw cases of cholera in 1849, and I want to show the successive steps by which I arrived at my present opinion. The first case I had to treat in 1849 was the wife of one of the porters of the hospital. She had a mild attack of choleraic diarrhea and I gave her 5 grs. of pulv. ipecac. co., but, from the time the purging ceased, the woman went into a state of collapse and died. This made a great impression upon me at the time. I only did what I had been taught to do, yet it seemed to me a most disastrous result. I could not help thinking that the theory was wrong and the practice injurious. In a large number of cases which I saw in the

hospital, brandy and opium was the approved treatment, and the mortality was fearful. In despair, this treatment was abandoned and salt and water given instead, with the idea in view of making up the loss of the saline constituents of the blood. No stimulants were given and no opium. The patients went on purging profusely, yet nearly three-quarters of the cases recovered. You thus see the result of opposite methods of treatment.

In 1854 I was Junior Assistant Physician. After the first few cases in the wards, all of which proved fatal, I was left in sole charge of the hospital. I confess I undertook the task with some apprehension, and the question of treatment caused me a good deal of anxious thought. I knew there were certain plans of treatment, the reverse of the opium treatment —the calomel treatment, for instance—and, as far as one could judge, the results were very successful. Then there was the plan of injecting saline solutions into the veins, to which I have already alluded. It occurred to me about that time that the purging of cholera was, perhaps, like the rash in measles, small-pox, etc., viz., a means of getting rid of excrementitious matter. This was the line of thought which led me to give castor oil. My first cases recovered, though the discharges were profuse. That seemed contrary to the notion that collapse was due to loss of fluid. Twelve out of my first fifteen cases recovered. I published the cases, and for a time was looked upon as a dangerous lunatic. My friends, forseeing the storm, had endeavored to dissuade me from doing so, but, strong in my belief of the correctness of my views, I published them. I set to work and read up all I could find of reports on cholera by Indian practitioners. I very soon found out from various sources that in the worst class of cases there was no relation between the amount of collapse and the amount of the discharges. Patients with profuse diarrhea did well and came round, while others with little or no discharge became profoundly collapsed.

The rapidity with which patients rally from the collapse under favorable circumstances is inconsistent with the idea that it is due to important changes in the blood. When a patient becomes collapsed from simple diarrhea, his recovery is very gradual, whereas the recovery from choleraic collapse, when it takes place, is as rapid as in suspended animation from drowning, etc. Another remarkable feature is the blueness of the body surface. The patient is often almost black, showing the intense congestion of the venous system, and not in any sense due to the purging. Then, too, the patient, though pulseless, is capable of considerable physical exertion. Men whose weakness, were the condition of the pulse due to any other cause, would be such as to be unable even to turn in bed, can get up and walk across the ward. Almost without exception, practitioners with experience of cholera before fifty years ago, recorded that although alcoholic stimulants could scarcely be withheld under the circumstances, yet it was the universal experience that they were not only useless but dangerous.

Another remarkable treatment was that by venesection. Many Indian practitioners record cases in which the effect was almost miraculous. Now it is evident that to bleed a patient who had been purged to a state of

pulselessness, would be madness. I shall show you directly that the relief from venesection is due to the lessening of the tension on the righ side of the heart. At that time I came across a very valuable book by Dr. Edward Parkes, published in 1847. From him I learned this very important fact that in all cases of death during collapse, when the chest is opened, the right side of the heart, pulmonary artery and systemic veins were filled with blood, while the systemic arteries were empty, the same condition, in fact, as in patients who had died from apnea, or from the inhalation of nitrous oxide. He goes on to say that there is evidently some impediment to the passage of the blood through the lungs, and made the nearest approach to a true explanation when he says that the lungs contract and bar the entry of the blood. Although seven years after the demonstration of the muscularity of the arterioles, it was before the functions of the muscular layer had been shown. The only possible explanation is that the poisoned blood which excites the diarrhea, also excites contraction of the vessels of the lungs and finally arrests the flow of blood entirely. This explains all the symptoms of pulselessness, the rapid collapse, and equally rapid recovery, the blueness, coldness, etc.

Now we come to the fact of which I have already spoken, viz: the effect of hot saline injections into the veins. No explanation would be satisfactory which would not explain the effect of these hot injections. We are told that the hotter the injection the better the results, and the best results were obtained at a temperature of from 106° to 120° F. Even a temperature of below 110° was said to be injurious. The explanation is this: that the warmth of this fluid relaxes the tension of the pulmonary arterioles. It is not the fluid *per se* that does the good, but the warmth; of course the symptoms return, since this cause is still present. I thought it was a great step in advance when I hit upon this explanation. There is, however, one other explanation of the effect of these injections, that by diluting the poison in the blood, its effect is mitigated. Dr. Parkes injected several persons, with very poor results, but the temperature of his injections did not exceed 100° F. You are now in a position to understand the rapidity with which the attack comes on and passes off.

Another very important point to remember, is the suppression of bile and urine. An explanation of the suppression of the bile secretion is afforded by our knowledge that bile is a product of oxidation. We know that during collapse there is less air inhaled, less oxygen is consumed, and there is a great diminution in the amount of carbonic acid given off, corresponding to the diminished supply of urine. I do not suppose that, in any case, absolute suppression of bile and urine takes place, but it is clear that during the collapsed stage the amount of blood passing through the lungs is very much reduced—say to a quarter, or even a sixth. With this there must be a corresponding diminution in the oxygen introduced into the system, and all oxidized products must suffer. Consider the condition of these organs at birth. They have no functions to perform—the lungs especially, for there is a certain amount of altered bile in the shape of meconium and a little urine, but both are small in amount. The instant respiration begins, the functions of the liver and kidneys also be-

gins, these necessarily going on simultaneously; the blood passes through the lungs, oxygenation begins, and then the vital processes take a serious start. During the collapse of cholera, the circulation in the lungs is reduced almost to the level of the fetus, and therefore the same processes which are latent in the fetus become dormant in the cholera patient. It is not the same with all secretions. I myself have seen a nursing woman get collapsed, yet the secretion of milk went on as usual. Many men have endeavored to explain the non-excretion of urine by the thickness of the blood, but the continued secretion of milk is a direct contradiction of that theory.

Another series of facts, confirmatory of these theories, are to be found in the record of certain cases, in which a mechanical plug in the pulmonary artery has given rise to all the symptoms of cholera collapse. I had such a case in my wards some time since, and the resemblance was striking. A very remarkable case of the kind has been published by Dr. Alfred Carpenter, who observes that "the only symptoms wanted to make up a characteristic case of cholera were the alvine discharges." The symptoms were coldness, cold sweats, quick breathing, sinking of the eyes, diminution of the voice, pain in chest and epigastrium, almost complete suppression of urine, etc. *Post-mortem*, the right side of the heart was found very distended, and the pulmonary artery was found to be blocked by a large clot. Of course there was no purging and no cramps, but all the other symptoms were present, including the suppression of bile and urine. Several such cases are on record. A very interesting experiment has been performed on a rabbit, anesthetized with chloroform, and the pericardium exposed and injected with a solution of muscarin. Immediately after the lung became pale and the right side of the heart greatly distended. A little atropine was injected, and in a short time all the symptoms had passed away. This is a pretty demonstration, and shows what occurs in an animal as a consequence of apnea or breathing nitrous oxide, as well as being analogous to the condition in the algide stage of cholera.

Well, now, as to the alleged thickening of the blood. It was generally thought that the loss of fluid explained this thickening and its higher specific gravity, and this gave rise to the idea of injecting saline solutions. In one case, in which I injected warm fluid with but little effect, we found a clot in the pulmonary artery, which prevented the blood passing, so that the absence of effect was easily accounted for. It is a noteworthy fact that this thickening never occurs during the diarrhea stage, however profuse the evacuations. The explanation of this curious fact is that four-fifths of the tissues of the body are made up of water, and as soon as the fluid is withdrawn from the blood vessels, the water of the tissues is drawn upon to fill its place. This process is well exemplified by the fact that the blood drawn at the end of the operation of venesection has a lower specific gravity than that first drawn, due to the passage of water into the vessels.

Why, then, does the fluid thicken when collapse comes on? I must ask you to concede me the fact that during collapse there is a block of the pulmonary circulation—not an absolute block, but still very serious.

What happens then? In the first place there is a great diminution of oxidation in consequence of oxygen not being admitted, and the result of this deficiency is that the coloring matters of bile and urine, due to the disintegration of the blood corpuscles, is no longer produced in any quantity. Consequently there is an accumulation of unoxidized material. When the block occurs, a certain quantity of blood escapes through the walls of the distended veins and systemic capillaries in consequence of the increased pressure backward from the right heart. Besides that, there is probably a filtering action through the contracted arterioles which allows the thinner parts of the blood to escape while retaining the thicker portions. It has been proved by experiment that on contracting the arterioles by stimulating the spinal cord, serum passed out of the vessels, the corpuscles being retained. You are aware, I suppose, that blood thickening occurs in all cases in which there is interference with respiration. I have even seen a big clot in the jugular vein in consequence of asphyxia, due to diphtheria with impeded respiration. In such cases the patient will die, even after tracheotomy has been performed.

When collapse has been very prolonged, there is often what is called consecutive fever, the temperature rises, and there is suppression of urine, etc. This is due to the three changes which the blood undergoes during the collapsed stage; imperfect oxidation, now made up for by increased oxidation, with consequent high temperature, of the materials which have been accumulated. When oxygen is readmitted there is a general flare up, so to speak. The suppression of urine may be due to the throwing into the circulation of a very large amount of effete material which has accumulated. It is a remarkable fact that, notwithstanding the suppression of urine during the collapse, there is no accumulation of urea in the blood, but when this occurs in the reaction, you will find urea present in abundance. This condition is very often fatal, and the patient, having passed through the crisis of collapse, dies of subsequent reaction. In patients dying during collapse, the lungs are very anemic, the blood not reaching the capillaries. It is often said that this is because the blood is so thick that it cannot penetrate; but it is really just the opposite. The patients become collapsed because there is no blood in the systemic circulation, and the collapse of the lungs is very marked in cholera, and if you weigh the lungs you will find them very light. You know that the bronchial vessels belong to the systemic system, coming as they do from the aorta. It has often been observed that although the lungs are collapsed and empty of blood and light, they are dark in color and cyanosed. This is due simply to the fact that the bronchial veins are part of the systemic veins, and are therefore congested in common with the others.

To resume what I have said, there can be no doubt that cholera is due to a poison, which may be inhaled or swallowed. One fact that has been made out is, that, in a very large proportion of cases, water is the vehicle. Many an epidemic in India has been traced to the contamination of wells from which the natives drink. The incident of the pump in Golden Square, during one of our own epidemics, elucidated by Dr. Snow, is another good example. The dejections of a cholera patient, having found their way into the well, killed 600 people in about ten days. The fact

that some people drank of the water without contracting the disease, of course proves nothing against it. The poison is thrown off by the intestines. It is most powerful after a lapse of time when decomposition has set in, but it is destroyed at a still further stage of decomposition. Dr. Charles Macnamara tried this experiment on seventeen men, giving them contaminated water to drink, and five of them died, the rest escaping. The poison, when drunk, is absorbed; it is not a mere local action and there never was a more absurd theory than that which ascribes the diarrhea to denudation of the intestinal villi and consequent transudation of the contents of the exposed blood vessels, especially when we bear in mind that the denudation is a *post-mortem* phenomenon.

In a certain workhouse, moreover, it was noticed that the persons who used the privies suffered severely, while the invalids, confined to the wards, escaped; so it is evidently possible to inhale the poison. Again, the fetus *in utero* often gets infected, and several instances are on record of children born with undoubted symptoms of cholera. Another proof of the blood infection is that, before the intestinal symptoms occur, there are certain symptoms of a constitutional character, malaise, lassitude, etc., analogous to those observed before in other constitutional diseases due to blood poisoning.

A CASE OF LAPAROTOMY FOR KNIFE WOUND OF THE ABDOMEN WITH PROTRUSION OF THE BOWEL.

By T. W. Huntington, B. A., M. D., Surgeon Southern Pacific Co's Hospital, Sacramento, Cal.

Read before the Sacramento Society for Medical Improvement.

H. D. H——, aged 24, a horse trainer, received a knife wound in the abdomen about 11 o'clock P. M. of July 18, 1888. An hour and a half later I found a penetrating wound of the abdomen two inches long, clean cut, running transversely. The centre of the wound was located at a point one inch below and two inches to the left of the umbilicus. From this opening eight or ten inches of small intestine protruded. The patient was bleeding freely and the underlying cavity seemed flooded with blood. The exposed gut was at once restored to the cavity. A careful search was made for bleeding vessels in the abdominal walls, but none were found. The wound was then closed temporarily by a superficial suture and an improvised dressing adjusted.

An hour and a half later (three hours after the injury) the patient was etherized, and the abdomen opened by an incision four and one-half inches in length in the median line; Drs. Jas. H. Parkinson and W. A. Briggs, of this city, assisting.

Through this opening the entire gut was carefully searched for a possible puncture, but none was found. The abdominal cavity was filled with fluid blood and clots, some of which were adherent to the viscera and peritoneum. The cavity was then thoroughly cleansed and sponged out with a dilute sublimate solution, the intestines meanwhile being enveloped in warm towels. During the operation the hemorrhage suddenly ceased, and as the patient seemed to be sinking rapidly the intestines were replaced, and the wounds closed hastily.

The amount of blood removed from the cavity was roughly estimated at from two to three pints. Its origin was not accurately determined owing in part to the fact that the only light available was that from a coal oil lamp, and in part to the haste necessitated by the patient's exhausted condition. My belief, however, is that it proceeded from a small punctured wound which I located below and near the left kidney. The operation lasted one hour and twenty-five minutes. At the beginning the patient's pulse was 90, full and strong, though there was evidence of profound shock. At the close the pulse was 138, small, threadlike and almost imperceptible; extremities cold and clammy, and the general outlook unpromising. The usual measures for restoration were adopted, and at 8 A. M. reaction had taken place and the patient was decidedly comfortable.

The subsequent history of the case was that of rapid progress toward perfect recovery. The highest temperature, 101.5, was recorded on the evening of the first day. On the morning of the second day both pulse and temperature were normal. Both the operative and original wounds closed by first intention. The latter, however, reopened at the end of the first week and a small amount of dark fluid discharged through a narrow sinus.

The patient was wholly nourished by enemas, composed of milk, whisky and Reed & Carnrick's liquid peptonoids for the first five days, after which time a small amount of the same materials were administered by the mouth. The value of the liquid peptonoids, as a means of rectal alimentation, was highly appreciated by the patient, he appearing fully conscious of the benefit derived therefrom. The bowels were moved for the first time at the end of ten days after a large enema. At the expiration of fifteen days the patient was well and able to be removed from his room to a neighboring house.

A point of interest in this case, as in others of its class, is worthy of comment, viz: that in returning the intestines to the abdominal cavity, after completion of the preceding steps of the operation, no special order need be observed. The task is a difficult one at best. The object to be attained is to replace them as rapidly as possible, and in so doing, little if any attention can be paid to maintaining normal relations.

In the management of a penetrating abdominal wound, from whatever cause, the surgeon is confronted by one of the gravest of all responsibilities. What course shall be pursued, is a most formidable problem. Within the recollection of the youngest of us there were none to question that the establishment of direct communication between the peritoneal cavity and the outside world for surgical purposes, either by a new incision or by enlarging the original wound, materially enhanced the patient's risk. Referring to the disasters which befel the pioneers in ovariotomy, Professor Charles D. Meigs was led to exclaim, "*I detest abdominal surgery.*" It is safe to say that a similar feeling prevailed almost universally toward the operative treatment of abdominal wounds. Very recently it has been shown that there is the greatest immunity from such a step, providing due regard be had for the rules of antiseptic surgery. This fact has settled many doubts and the majority now believe that the patient's greatest safety lies in thorough exploration, removal of foreign matter, ligation of bleeding vessels and repair of wounded viscera when necessary.

In the August number of *Annals of Surgery*, Dr. H. C. Dalton says that he has collected from all sources sixty-eight cases of abdominal wounds treated by the operative method of which 39.8 per cent. recovered. The same author states that under the "do-nothing" policy less than eight per cent. recovered. These statistics, in conjunction with the experience of occasional operators, not only make plain the duty of the surgeon, but render him in a measure culpable, provided his patient die without the benefit of an exploratory operation.

In engaging in this department of surgery the attendant should fully acquaint himself with the difficulties and embarrassments which he will almost certainly encounter. It is here that in foresight and caution, the watchwords of the fearless, will be found an ally without which success is the merest accident. Preparations are to be made for every possible emergency, for at a critical period a fortu-

nate result may be rendered improbable by the omission from one's equipment of some essential article. Competency on the part of assistants is of the highest importance; for, when surrounded by a corps of skilful, experienced aids, the mind of the operator is relieved of all care concerning minor details and he is enabled to proceed more rapidly and systematically than would otherwise be possible. Having once entered upon the task of exploring the abdominal cavity, in search of a lesion, the work should be prosecuted with the utmost thoroughness. No portion of the viscera can with safety be permitted to escape inspection, and in the completion of the task, as regards toilet of the cavity and omentum, necessary steps must not be omitted or too greatly abbreviated, even though the patient's condition become precarious.

426½ J street.

LEUCODERMA.

By D. W. Montgomery, M. D., San Francisco, Cal.

Miss R——, æt. 22, single, born in America from American parents. Latterly has been occupied as a nurse. History of maternal grandparents good. Her mother was always ailing from some obscure internal trouble. An ambrotype, taken when she was married, at 27 years of age, shows white patches around the mouth and on the forehead. She also had pigmented patches on the face, so that people thought they were "liver spots." She died from Bright's Disease, and at the time of her death her entire face was a "dead white" color. Miss R.'s father was a minister and was always of a delicate constitution. He died aged 40 from "a chill" (malarial?). Her brother had a highly nervous temperament, and died aged thirty of consumption, complicated with Bright's Disease. Her sister is a consumptive. The patient herself has always been sickly from a child, suffering like the other members of the family from weak lungs and a weak nervous system. Neither her brother nor her sisters have ever had any white patches on the skin. The white patches appeared first when she was sixteen years of age, and extended rapidly during the first few years, but for the last two years the old patches have not increased in size. A new patch is now appearing on the ring finger of the left hand. Had a small white patch on the back of the neck which has disappeared. She used to fancy she had white patches around her mouth.

Present condition: Brunette, *i. e.* dark hair and dark eyes, with a clear white skin; general health good, but nervous, and when a little excited stammers. The white patches are confined to the dorsal surfaces on both hands; there are also some white patches on the hips. The largest patches are on the radial side of the dorsal surface of the right hand. Here there seems to be some attempt at arrangement—there are three triangular areas, the apices lying between the metacarpal bones and pointing toward the wrist, the bases of these triangles are not well defined, but run off irregularly into the white patches on the dorsal surfaces of the fingers. This is clearly shown in the accompanying engraving.

The new patch on the dorsum of the ring finger of the left hand seems to be advancing downwards by a well marked rounded margin. All the other patches have irregular, well-defined borders. There is no deeply pigmented ring around any of the patches—the skin appearing perfectly normal up to the well defined edge. On the dorsum of the left index finger a group of about eighteen flat warts stand in a leucodermic patch—these warts retain their pigment. She never has noticed any subjective symptoms in the nerves distributed to the skin bearing the leucodermic patches. The hairs on the white patches are also devoid of pigment. There is no alteration of the skin in any way except in color.

There are some leucodermic patches on the hips which show the same irregular well defined margins as on the hands—these patches do not vary with the seasons, while those on the hands become decidedly more accentuated in the spring, which she thinks is owing to the tanning of the hands at this season. The points of special interest in this case are the peculiar triangular shape of the patches on the right hand, giving the appearance of following the distribution of the nerves. The clearly hereditary character of the disease, or at least its undoubted occurrence in both mother and daughter, and the retention of pigment in the warts—although the warts are clearly situated in a leucodermic patch.

In regard to the etiology of this disease, most authorities are in-

clined to look upon it as being a trophic disturbance of the nerves, and in this case the patient certainly was very nervous—there was her own statement as to this, and also her deportment and her stammering when excited. Dr. McCall Anderson, in his work on diseases of the skin, mentions a curious case occurring after a traumatism.

The diagnosis is not difficult. It must be diagnosed from partial congenital vitiligo or albinismus and a form of leprosy. Partial albinismus almost always occurs in the black race; is congenital and is stationary; whereas leucoderma occurs in all races, is acquired and has a tendency to progress. The diagnosis from leprosy has only to be remembered to be made. In leprosy there is always some deterioration of the general health. The white spots have a greyish tint; there is often anesthesia of the affected portion of skin, and the skin is either thickened or atrophied.

The word leucoderma is liable to give rise to some confusion, as it has also been applied to a disease of the skin occurring in some cases of leucocythemia—this disease consists of soft nodules in the skin, formed of accumulations of lymphoid tissue. The name is the only similarity between the diseases.

No treatment seems to have much influence over this affection —if the patient's nervous system be run down, then arsenic or some of the nervine tonics are indicated. We can alter the color of the skin with blistering agents, but the old state of affairs soon asserts itself again. Sometimes staining the whitened areas with butternut juice causes them to appear less salient.

600 Sutter street.

CREMATION.

By J. R. Laine, M. D., Sacramento, Cal.

Read before the Sacramento Society for Medical Improvement.

From the remotest antiquity to the present time mankind has been led by some circumstance to adopt one of three or four expedients for the disposal of the dead. Civilization does not seem to have influenced in any great degree the methods in vogue during the present or the past history of the race. The necessity of putting the bodies of the dead out of sight and removed from the consciousness of the senses, doubtless impelled man to bury them in the earth or destroy them by fire. Both methods have been practised at the same period by nations and tribes in remote times.

The deeply frozen earth perhaps suggested the easier destruction of the body by fire. The terror inspired by the idea of having a dead body devoured by wild and ravenous beasts may have also suggested fire.

Another method of sepulture very commonly practised by the aboriginies of North America, is by wrapping the body in skins or blankets and placing it upon a scaffold of four posts or crotches, there to remain until the soft parts shall have returned to their original elements and nothing is left but the bones, which are by some one of the tribe, carefully interred. Bodies are also suspended in the branches of trees to keep animals from devouring them.

The Parsees of Bombay expose their dead on the top of high towers to be devoured by vultures. They brought this custom from their own country many centuries ago.

The ancient Colchians and Iberians, while cremating persons of ordinary and common-place character, distinguished the remains of their brave and honorable dead by devoting them to be eaten by well-bred dogs kept for the purpose. Both the ancient and modern people have thought it to be a higher destiny to nurture noble animals than to feed worms.

Mummification of bodies which was practised extensively in Egypt, had a religious import and was enforced upon the people by the most solemn ceremonies. Inhumation of mummies was also practised, and the bones of some have been dug up on Stygian shores during our day, that have lain there three thousand years instead of the one hundred which was the time allotted for redemption by the good works of the friends of the departed. The modes of sepulture and the funeral rites of our own aborignal tribes have been thoroughly investigated by the Bureau of Ethnology in the Smithsonian Institute, with the result that the outcome of these investigations shows that every method ever practised in the old world has been practised in the new.

Inhumation has been the most generally adopted custom, but this has been varied in various localities by mummification, by dessication and incinneration and the practice of depositing the dead body on scaffolds. There is a Greek legend that Hercules was the originator of cremation by finding it necessary to burn the body of a friend in order to convey it to the dead man's father in accordance with a vow he had made. In the historical times of Greece there is evidence that interment and cremation were both practised, the choice or prediction depending upon individuals or

families. The selection may have depended upon the particular school of philosophy which the persons favored or followed. Thales regarded water as the origin of all things and regarded it as most fit that the body should be reduced to its original elements by putrefaction, while Heraclitus on the other hand, held fire to be the first principle, and he and his sect preferred cremation. The best authorities would indicate that the general practice differed in different cities or states. Thus, while inhumation and interment was the exclusive custom in Sicyon, in Sparta, and in some other cities, cremation was the prevalent, though not the exclusive custom in Athens and in most of the cities in Magna Græcia.

Among the Etruscans and other tribes of ancient Italy, cremation seems to have been a common, if not the prevalent usage, though in the early ages of Rome, interment was preferred by certain families; but upon an increase of intercourse with the East, cremation became common, and met with such favor as soon made it almost the only mode of sepulture among the upper and well-to-do classes. It continued to be the practice during many generations until it very gradually gave place to inhumation or interment, partly no doubt under the influence of Christian teaching and example. The custom of interment, with or without embalming, became established among the early Christians through Hebrew influence, and it is easy to see how the fitness of the mode might have been ratified or confirmed by their belief concerning the sacredness of the body and "the resurrection of the flesh."

Tertullian, in the second or early in the third century, refers to certain heathen as objecting to cremation for what appears to him a superstitious reason, the fear of injuring the soul believed to be in some way still connected with the body. With this weak reason he contrasts what he deems the better reason which prevented the Christians from cremating their dead, namely: "Unwillingness to treat the dead body with harshness or barbarity," and then presently he scoffs at the rude inconsistency of the heathen multitude, in first savagely burning their dead and then most gluttonously feasting them; with the same fires, doing them good and evil. The funeral banquets to which Tertullian alludes have been celebrated by people at a certain stage of civilization all over the world. The intimate association of these banquets, often idolatrous in form, with the practice of cremation, very probably suggests one of the reasons which rendered the early Christians so tenacious of a different mode of sepulture.

Augustine bitterly complained that in some African churches

the funeral banquets were the occasion of revelling and drunkenness, scandalous to the neighboring heathen. That the change from cremation to interment took place is apparent from the mention in the Theodosian Code, of both customs as still existing A. D. 438. Macrobius, who wrote somewhat earlier, about A. D. 420, states expressly that the custom of burning the dead had then wholly ceased, and that all that he knew about it he had learned by reading of the past. His statement doubtless refers chiefly to Rome or possibly to Italy, and the presumption is that in the outlying provinces of the empire the custom continued many years longer. A law of Childeric the Third, and another of Charles the Great, prohibiting the practice, shows it still alive in the eighth century. Under the Roman empire proper, it was never prohibited by statute or rescript; even the Christian emperors refusing, if they were asked, to interfere with a practice which had been sanctioned by the approval and example of so large a part of civilized mankind and to which no objection could be fairly alleged on the score of either decency, good morals or religion.

It is to be expected that people slightly conversant with history, and accustomed from education and habit to regard inhumation as the mode of sepulture prescribed by divine institution and the very nature of things, should be at considerable pains to account for the origin of cremation. In the light of modern research concerning primitive culture, such speculations on the subject of cremation seem rather superfluous. The two modes have coëxisted for centuries among the tribes of ancient Greece and Italy, and even among the aboriginies of North America. When further more we consider the fact that throughout the greater part of Asia, from the earliest times until the present day, cremation has been the ordinary mode of putting away the dead, we cannot feel much at a loss to account for the usage. It is surely safe to presume that there is something in the method which commends it to the favor of mankind, independently of any religious dogmas or philosophical theories which have been or may be associated with the practice. The first Aryan who wandered into India may have cremated his dead, and those again, who wandering over the western table lands, may have carried the custom with them in their migrations. The Celts, the Scythians, the Lithuanians, the Germans, the Scandinavians, etc., were all cremationists when first met with in history. The fitness and convenience of the mode must have been strikingly apparent under the inclement skies of Middle and Northern Europe. In the alternate damp and frozen

regions inhabited by most of the tribes, fire would have no terrors for the most timid, and as a mode of sepulture would commend itself both to the imagination and to the senses of the dwellers in the cold and sombre North. Besides such considerations as the difficulty of digging graves in certain seasons of the year, fire would seem a proper emblem of life and hope to the dwellers in a region where life was, at least, a continual war with the elements.

There is a great contrast between interment and cremation. Comparisons have been freely made in Italy, Germany and Austria, and, to some extent, in France and Great Britain, of the two methods, though but little has been written about it in this country. Until quite recently the time honored usage of inhumation has been sustained by public opinion—an opinion, called by Pascal queen of the world, strong enough to awe all protest or remonstrance into silence. This rigorous rule makes compliance with the universal custom a matter of necessity. There is a total absence of means by which the abominations might be avoided. And besides if the means were available, more than ordinary courage must be possessed to openly prefer a mode of sepulture so much more scientific and less abhorrent and revolting to the sensibilities than is implied by burial in the ground.

With the change of time men also change. A change in their mental habits lead them instinctively to distrust their imagination. An ever increasing number of those who were formerly content to follow the customs of the preceding generations, now prefer by independent scrutiny to get at realities. They prefer a sterner guidance than mere sentiment and imagination. Those who shrink from the thought of sepulture by fire and who turn to sepulture in the ground as a refuge, have certainly failed to comprehend the conditions which they thus prefer. They have never realized the abominations of what has been termed a "resting place or home of peace." Such phrases are a part and parcel of the poetical and fictitious expedients by which mankind has sought to delude itself and hide the dread secrets of the charnel house.

In a less enlightened age the processes of destruction by burial were, in a degree at least, mysteries with the majority, and however revolting, they are secrets and mysteries no longer, and are subject to the utmost freedom of exposure. There should be no reticence on a subject involving the welfare of mankind. No trait of civilized mankind is more glaringly manifest than indifference and contempt for the sanctity of the tomb. No fact is more notorious than the desecration of graves. There are but few towns

and cities that are not partly built upon violated graves. There is not a railway whose construction did not involve the removal of skeletons and even bodies partly decayed. These mortal remains were laid down by sorrowing kindred in the consoling faith that they should lie there undisturbed; and yet it seems that when a few years have passed over a grave, no one seems to question the right or duty to remove the relics if any reason can be given why the removal should take place. No reflection is intended upon those who recognize the necessity of removing the dead for the sake of the living. About the urgency of the removal there can be no question.

[*To be concluded.*]

Reports from the Hospitals and Asylums of the Pacific Coast

SANTA FE R. R. EMPLOYES' ASSOCIATION HOSPITAL.

Needles, Cal.

Under the Care of JAMES P. BOOTH, M. D.

Acute Rheumatism Treated by Salicylate of Sodium.

In the language of that most pleasing writer, Fothergill, "It *is* somewhat depressing to have to acknowledge that very little is known about the pathology of rheumatism;" and it is doubtless this want of knowledge which gives us so many "capital" and "specific" remedies for its cure. At present salicylate of sodium stands at the head of the list as an anti-rheumatic, and to test its superiority over the old "alkaline treatment," the following cases were selected:

Case I. F. C——, English, æt. 24, a car repairer, admitted February 19th. Had been transported by rail from Peach Springs, A. T., a distance of 110 miles; was totally unable to move hand or foot, and when transferred from the stretcher to the bed, cried like a child, so great were his sufferings. Temperature, 102°, pulse, 115, full and bounding. To alleviate pain, a hypodermatic injection of morphine (¼ grain) was administered at once. He was then ordered the following to be taken every four hours:

℞—Potassii Acetatis, gr. v.
Potassii Iodidi, gr. iii.
Aquæ Menthæ Pip., ℥ i. M.

To correct constipation, three compound cathartic pills at bed-time.

February 20th—Pills acted freely, morphine quieted pains for perhaps an hour or more, but patient complained that he had slept none. Was still unable to move himself in the least, and cried out with pain when moved by the attendant. Pulse, 98 and full, temperature, 101°; no appetite; urine scanty and highly colored. Ordered salicylate of sodium, forty grains in water every three hours, beginning at 9 A. M. At 4 P. M. was in a profuse perspiration; temperature, 99°, pulse, 82, soft and regular; no pain; complains of tinnitus aurium and giddiness. Ordered same

dose every five hours. Patient had no further difficulty, and on February 25th was discharged and returned to duty.

Case II. W. H. S——, in the telegraph department, æt. 34, American. Has had rheumatism for many years, attributable, he thinks, to the peculiar exertion of his daily avocation, viz: climbing poles. Placed on the alkaline treatment March 28th, but after two days' trial was ordered salicylate of sodium. So rapid was the improvement that he returned to duty April 2d, since which time he has written for "more of the same medicine" to be sent him, confident that it will effect a cure.

Case III. E. A. S——, section foreman, American, æt. 25, single, from Peach Springs, A. T., admitted April 3d, unable to walk. Placed on the alkaline treatment. After two days' trial, with no beneficial results, given salicylate of sodium. Discharged, cured, April 9th.

Case IV. Fred Walters, German, laborer, æt. 29, single, from Kramer, Cal., admitted April 23d. Tried the acetate and iodide of potassium for three days with no positive results, when recourse was had to the salicylate of sodium. Patient discharged, cured, and returned to duty May 2d.

Case V. John O'Brien, Irish, laborer, from Peach Springs, A. T., æt. 49, single, admitted May 14th. Ordered the acetate and iodide of potassium at once and after one week's trial, substituted nitrate of potassium and guaiacum with no positive improvement. Began the salicylate of sodium, and in seven days the rheumatism had disappeared. At this period, however, a troublesome conjunctivitis set in and patient was not discharged until June 13th.

Remarks—These cases are specially reported because they were under constant surveillance until discharged, but there were during this same period—that is from February 19th to June 13th—twelve out-door cases of the same disease, in all of which the salicylate of sodium was used with perfectly satisfactory results. Although frequent inquiries were made concerning the head symptoms produced by the remedy, no one of the patient's complained of more than a giddiness or ringing in the ears. The hallucinations or sight objects spoken of by some writers, were not complained of by a single patient. Nausea was noticed in two cases but was speedily relieved by lessening the frequency and quantity of the dose. It is unnecessary to add that in these cases woolen clothing was worn next the skin, and the patient put to bed between blankets. Large doses were given in all these cases, but careful examinations before commencing the treatment, exhibited good heart action with high temperature.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M. D., Sacramento, Cal.

Electricity in Uterine Displacements.—The uterus itself, says DR. SMITH, consists chiefly of non-striated muscular fibre intermixed with dense areolar and elastic tissue and large blood vessels. It is the permanent contraction or tone of this muscular tissue that keeps the uterus in

its normal shape. Loss of tone and consequent flexion may be due either to defective nutrition or defective innervation. The arteries of the uterus are large and tortuous and their calibre may be modified by (*a*) the tone of their own circular fibres, (*b*) the tone of the uterine muscular tissue. The quantity of blood in the uterus may be considerably increased by mechanical hindrances to the venous circulation due to constipation, angular change in the direction of the venous blood current, etc. If the normal shape of the uterus is maintained by muscles so is its normal position also. The application of the term ligaments to the uterine supports is erroneous and its results are unhappy. The so-called round ligament is a bundle of muscular fibres derived from the transversalis and uterine muscles. Malgaigne says that the utero-sacral ligaments are composed of non-striated muscular fibres. No evidence is necessary to show that the vagina is a muscular organ. Pessaries are not curative; at best, they are only palliative, and, instead of removing the cause of displacement they aggravate it. Electricity, on the contrary, stimulates the contractile power of the weakened muscles, improves their circulation and nutrition and thus restores their function. Strychnia, ergot and hydrastis tone up the weakened muscles, but their action is slower, more uncertain and less efficient than that of electricity. Electricity, especially the faradic current, is indicated in all forms of displacement, whether due to defective support or to excessive weight of the uterus. In the latter condition, except when due to subinvolution, the galvanic current is preferable, because of its greater trophic action. Before the use of either, the vagina should be thoroughly disinfected The wire of the faradic coil should be short and thick so as to give quantity instead of tension. Apostoli uses a bipolar exciter, large for the vagina, thin for the uterus, in which the poles terminate about an inch from each other at the end of the instrument. He claims for it the following advantages: (1) Doing away with the cutaneous pole. (2) Concentrating on the uterus (and its ligaments) the whole of the electrical action. (3) Greater ease of application, (4) A stronger current may be employed with less pain.—*American Journal of Obstetrics*, June, 1888.

Hysterotomy versus Cephalotripsy.—Dr. Candela presents the following *résumé* of a comparative study of these operations. When the case is under control from the beginning Cæsarean section affords better results than cephalotripsy, because (1) It is a uniform operation free from unforeseen accidents, save those of any operation in which chloroform is administered. (2) The comparative brevity of the operation and the character of its lesions reduce traumatic shock to a minimum. (3) Antisepsis may be more vigorously applied. (4) The prognosis as to the fetus, is at least as favorable as in normal delivery. (5) The prognosis as to the mother is as favorable as in ovariotomy. With antiseptic precautions the danger of infection is more imaginary than real, and with catgut suture the peritoneum is preserved from contact with the lochia. The time selected for the performance of the operation (at the beginning of the period of dilatation and before the rupture of the membranes) is of great importance in prognosis. In the presence of a case not previously studied it, behooves the operator to adapt his course to the exigencies of the case.—*Progreso Gynecológico*, No. 105.

Causation and Treatment of the Summer Diarrhea of Infancy.—Dr. Vaughan advances the following propositions: (1) The factor most frequently operative in the causation of the summer diarrhea of children under two years of age is to be found in the food. (2) The changes whereby harmful substances are formed in the food either before or after it is taken into the body are fermentative in character; or, in other words, are due to microörganisms. (3) The microörganisms that produce the catarrhal or mucous diarrhea of infancy in summer may be, and probably are, only putrefactive in character, but those which cause the choleriform or serious diarrhea, true cholera infantum, are more than putrefactive; they are pathogenic; they produce a definite chemical poison, whose absorption is followed by the symptoms of the disease. (4) The bacteria which produce these diseases prove harmful by splitting up complex molecules and forming chemical poisons. (5) The most efficient preventive treatment of the summer diarrheas will consist in giving greater attention to the food, methods of feeding and the sanitary surroundings of children during the first two years of their lives. (6) In the curative treatment of the summer diarrheas of infancy, the destruction of the bacteria causing the abnormal fermentation is a necessity.—*Medical News*, June 9, 1888.

Utero-ovarian Gout.—Dr. Mabboux reaches the following conclusions: (1) Gout may localize itself in the female genital organs during sexual life as well as after its cessation—these are a metritis, vaginitis and even vulvitis of gouty origin. (2) These outbreaks of genital gout may either occur during menstruation (dysmenorrheic form) or in the interval. (3) Utero-ovarian gout is amenable to the same hydro-mineral medication (the alkaline mineral waters), as are the other forms. (4) After the subsidence of all inflammatory action the strong sodium bi-carbonate waters are indicated in the non-anemic and especially in the plethoric. (5) The cold calcic sulphate waters are beneficial in most cases because of their resolvent, sedative and tonic action. They may be used soon after the acute stage.—*Bulletin Général de Thérapeutique*, May, 1888.

SURGERY.

By T. W. Huntington, B. A., M. D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal.

Chloroform.—In his recent address before the British Medical Association, Sir George H. B. Macleod spoke as follows regarding the use of chloroform as an anesthetic: I, myself, after fairly trying most of the agents in use, now exclusively employ chloroform, and having for years kept an accurate record of its administration, and given it freely and without stint in all sorts of surgical proceedings, never refusing its benefits to a single patient, no matter what his condition or the operation to be performed. I have never had an accident except once, when an epileptic took a fit while being put under its influence, and died with a full and fixed chest. For speed and energy, for ease of application and agreeableness, for rapid recovery with little subsequent trouble, and for safety *when properly administered*, chloroform is, in my opinion, unrivalled. That it needs no apparatus but a towel, is a great point in its favor. This

is the record of one who has administered it constantly, almost from the time of its introduction into practice, and the statement in this sense may not be without its value. I never measure the quantity used, but exhibit it freely and take the color of the lips and the respiration as my chief guides. There is little doubt that "nervous" persons and those who are intemperate in the use of alcohol, tobacco and narcotics, and also epileptics require special care—over-saturation from the too frequent renewal of chloroform induces, in my opinion, the chief after-trouble.—*British Medical Journal.*

Successful Operation for Strangulated Inguinal Hernia in a Child Fourteen Days Old.—On Monday evening, July 30, 1888, I was called to see a child fourteen days old. The child had always been peevish, but no rupture had been discovered. On Saturday evening the child had had a natural dejection. On Sunday he vomited several times, but only the contents of the stomach. Monday noon stercoraceous vomiting commenced. I saw the child at 8:30 P. M.; he was rather collapsed. On examination, I found a right inguinal hernia, very tense, hard and irreducible. Taxis, under chloroform, was tried without avail. A few hours' later herniotomy was performed. The bowel was found to be of a deep purple color, but quite smooth and shining. Reduction was easy after division of the stricture. No unfavorable symptoms intervened and the child was well in eight days.—E. L. ROBINSON in *British Medical Journal*, September 1, 1888.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M.D., Sacramento, Cal.

Disturbances of the Nutrition of the Corneæ Following Gastric Fever.—At a recent meeting of the Société d'Ophthalmologie of Paris, M. DESPAGNET presented a communication on this subject. He stated that it is well known that corneal troubles follow typhoid and malarial fevers. According to Godot it was formerly known that transient fevers of gastric origin produced superficial vesicular eruptions on the lids and corneæ. It was not known, however, that gastric derangements might be followed by deep corneal affections. M. Despagnet described the case of a patient aged forty-three, whose corneal disease he thought was due to this cause. He was taken ill two years previously with symptoms of malaise, vertigo, painful digestion, nausea, etc. The urine, and the heart and other organs were normal. Suspecting arterial sclerosis, he prescribed iodide treatment, which removed the symptoms. Three weeks ago the same symptoms reappeared. This time there was a soft cardiac murmur at the apex. Milk diet and Vichy water was ordered. Two days later there was pericorneal injection, the appearance of a fog before the eyes: gray infiltration of the corneæ, especially in the centre, without inflammatory reaction. The iris and fundus of the eyes were healthy; the corneæ were anesthetic, vision $\frac{1}{6}$, and visual field normal. Eserine drops were prescribed, and six grains of quinine each evening. The patient stated that he saw quite well towards evening. When the pericorneal injection was intense, leeches were applied, with improvement of the local condition as well as

in the general health. Much scleral congestion persisted, however, with augmented intraocular tension. There was integrity of the visual field, absence of photopsy and decomposition of light.—*Progrés Medical.*

Symptoms of Disease of the Sphenoidal Sinus.—Dr. Emile Berger (*Rev. Mens. de Lar.—American Journal Medical Sciences*, September, 1888.), in order to learn the symptoms by which disease can be detected during life, has carefully studied the records of all reported cases in which disease of the sphenoidal sinus has been found *post-mortem*. Caries and necrosis present the following groups of symptoms: (1) Sudden unilateral blindness with phlegmon of the orbit; the origin of the blindness being perineuritis of the optic nerve in the optic canal. (2) Slow detachment of fragments of bone, without ocular troubles, and, finally, meningitis. (3) Sudden discharge of a large quantity of bone, by the nose. (4) Fatal hemorrhage after perforation of the wall between the sphenoidal and the cavernous sinuses. (5) Retropharyngeal abscess. (6) Thrombosis of the sinus and of the ophthalmic vein, due to thrombosis of the circular venous sinus of the sella turcica. (7) Perforation of the inferior wall of the sphenoidal sinus, without any other symptoms. In cases of tumors of the sphenoidal sinus, four periods can be distinguished: (1) When the tumor is limited within by the walls of the sinus, there may be no symptoms, or cephalalgia only. (2) When the tumor, by its growth, dilates the walls of the sphenoidal sinus, producing their atrophy and compressing adjoining organs—the compression may involve one or both optic nerves and produce amaurosis. (3) When the tumor may propagate beyond the walls of the sphenoidal sinus, it may extend into the nasopharyngeal cavity, ethmoid cells, or orbit and, finally, into the cranial cavity; perforation of the base of the cranium may occur without any symptoms, or may excite grave cephalalgia. (4) Metastases are observed in various organs. Epileptic seizures often take place. If the tumor grows rapidly, then meningitis or cerebral abscess occurs soon after perforation of the base of the skull. Wounds of the sphenoidal bone may produce the following symptoms: (1) In fissure of the superior wall of the sinus, continuous trickling of cerebro-spinal fluid. (2) Rupture of a fragment of the body of the bone may wound the internal carotid, to the inside of the cavernous sinus and cause pulsating exophthalmos. (3) Continuation of the fissure in the canal of the optic nerve will cause compression or rupture of the optic nerve, and, consequently, amaurosis. (4) If the fissure extends to the oval or round foramen, it will produce anesthesia of the second and third branch of the trifacial, and a rupture or wound of other and cerebral nerves may present simultaneously.

Artificial Tympanic Membranes.—Dr. Turnbull, of Philadelphia, read a paper at the meeting of the British Medical Association, at Glasgow, in which he expressed the following conclusions: (1) That such aids were important to the health of the ear, by preventing dryness and the general dangers to the hearing from the want of the protecting power of the natural membrane. (2) A certain degree of hearing would be possible without the membrani tympani, but perfect hearing would be impossible without it. (3) In the various agencies which had been employed they had not only the means of protecting and preventing the drying effects of

air, but also the prevention of the passage into the middle ear of injurious foreign agents, the prevention of disease from cold air or water, so apt to set up acute inflammation, followed by abscess in the mastoid or brain. Satisfactory results had been obtained from the cotton ball or pellets of Yearsley. The objection to this was the tendency which the ordinary cotton had to cause irritation, by bearing bacteria and micrococci and other foreign matters. It sometimes fitted so closely, owing to discharge or mucus on its surface, as to make a shut-sac, and absolutely prevent the vibrations of the membrane, thus acting as a damper. These difficulties were overcome by employing corrosive sublimate solutions with "sublimate cotton," or a disc of sublimate gauze, moistened with fluid cosmoline, so as to make it more adhesive. When water with glycerine was employed the mixture would soon ferment in the ear, become irritating and cause inflammation. The sublimate solution should not be used stronger than 1 : 4,000; if stronger, it gives pain. The patient was supplied with a dozen or two of these cotton pellets, attached to threads. The fluid cosmoline, or vaseline, was to moisten the pellets when about to be introduced, if the parts were dry. The second form was the india rubber disc. The author had discarded all forms of apparatus which had any metallic handle, having found them irritating and injurious. He applied a disc of "Mead's adhesive plaster," which was found to be perfectly pliable and antiseptic, or the same make of "boric acid plaster." He had had reports from almost every case of its success in relieving deafness, assisting the perforation in closing, the plaster being retained for months, and in one case, two years, with but little irritation. Dr. C. M. Thomas informed the author that he had found the oil silk that was employed in antiseptic dressing, a very successful artificial membrane, looking and acting like the natural one. He cut the pieces the size required, leaving a small opening in the centre. Dr. Ellis (Newcastle), said that patients afflicted with chronic deafness were so anxious to be helped that they would listen to anyone who would give them hope. This fact was often taken advantage of by impostors, and for that reason he questioned whether artificial drums were a blessing or a curse. They were a frequent source of defrauding the afflicted.—*British Medical Journal*, September 1, 1888.

Nasal Polypi.—After reviewing the subject of nasal polypi from a historical and pathological standpoint, Dr. G. Archie Stockwell says (*Medical and Surgical Reporter*, September 8, 1888), that we find no less than six methods of treatment still advocated, viz.: (1) The method of Hypocrates; (2) Removal by snare; (3) Evulsion by forceps; (4) Galvanocautery; (5) Topical applications of astringents; (6) Caustics and escharotics. The first method has little to recommend it and it meets with slight favor. Snaring of late years is generally performed by means of wire écraseurs, notably those of the Jarvis' pattern. Evulsion by forceps, for all it has held its place for many years, and is so extensively taught and recommended, even by some of the most eminent members of the profession, is a most barbarous procedure, and withal uncertain, unsatisfactory and dangerous. Not only is the pain evolved thereby often most excruciating, but free hemorrhage obstructs the view after the first effort, and the operator is compelled to grope blindly for that which cannot be dis-

cerned. The galvano-cautery is open to the same objections as the snare, viz.: difficulty and painfulness of introduction and adjustment, and the suffering produced by tightening, while it is especially liable to injure surrounding parts. Astringents, especially tannic acid, are recommended by Bryant, who advises their application to the growth by insufflation. This is usually palliative rather than curative. Caustics, at the present day, meet with favor, especially glacial acetic, carbolic and nitric acids and tincture of iodine. Glacial acetic acid is particularly satisfactory, save for the pain induced, and the difficulty of confining it to the growth alone. The others are open to like objections, and the additional one of unpleasant fetor arising from the slow death induced. Of late years, chromic acid had proved more satisfactory in the author's hands, as it is totally devoid of the unpleasant features accruing to other caustics and escharotics, since its properties are limited to the growth to be removed. A saturated solution of chromic acid freshly made with water, or the crystals merely moistened, may be applied by means of a fine glass rod or glass brush, or a piece of cotton wound about a slender gutta-percha probe. The growth absorbs the acid quickly, which insures its death, and the polypus comes away spontaneously in a few hours, or, at most, a few days, a second application being rarely required. Some of the author's patients, who had been treated by evulsion spoke with complacency of the use of chromic acid, as being pleasanter and nearly devoid of pain. On account of its painlessness, certainty and other advantages, it cannot fail to commend itself.

The Surgical Treatment of Membranous Opacities in the Vitreous.—Dr. C. Stedman Bull reviews the history of the treatment of vitreous opacities and gives a record of seventeen operations performed by himself. He used, according to the firmness and strength of the new membranes, an ordinary discission needle, a broader needle with double cutting edge, or a very slender cataract knife. Cocaine was employed in all cases. Wherever the peculiarities of the case admitted, the point selected for the puncture was just in front of the equator of the eye-ball, and just below the lower border of the external rectus muscle. The operation is a very brief one, and where possible, was preceded and followed by a rapid ophthalmoscopic examination. There seems to be no danger of loss of vitreous through the minute puncture made in the sclera, and almost as little probability of any annoying hemorrhage. Care should always be taken to make the puncture posterior to the ciliary process, and to avoid any undue pressure on the eyeball by the forceps. Little or no reaction follows, save in exceptional cases, and a protective bandage is needed only for two or three days. Of the seventeen operations done by the author on fifteen patients, fourteen gave decided improvement in vision and three proved to be failures. In no case was there any loss of vision from the operation. He concludes that the operation is a suitable one in certain cases, and is justified by the results obtained. It would seem wise to wait in any case until all inflammatory symptoms have long subsided before attempting to divide the resulting obstructing membranes, whether caused by hemorrhage into the vitreous, or by a hyalitis, the result of choroiditis. The eye should be absolutely free from all irritation before attempting any surgical interference.—*Med. Record*, September 1, 1888.

DERMATOLOGY AND VENEREAL DISEASES.

By G. L. Simmons, Jr., M.D., Sacramento, Cal.

Case of Entire Absence of Both Mammary Glands.—Dr. W. Wylie, of Skipton, describes (*Brit. Med. Jour.* Aug. 4, 1888) the case of a woman æt. 21 years, in all other respects normal, and in the enjoyment of perfect health, whom he lately confined. There existed no trace of mammary glands or anything resembling them. There was a small mole near where the right nipple should be found, and the pectoral muscle seemed quite bare of adipose tissue in that neighborhood. After confinement there was no trace of milk, nor has she suffered from sympathetic pain or uneasiness of any kind in that region.

Electricity in Incontinence of Urine.—In the *Gaceta de Enfermedades de los Organos Genito-Urinarios* for May, Dr. Alejandro Lettier records two cases of complete incontinence of urine, in which he used electrical treatment with success. The electricity was applied in the manner recommended by Guyon. Dr. Lettier lays stress on the importance of continuing the treatment at short intervals for a considerable time after the bladder has recovered its tone.—*British Medical Journal*, August 4, 1888.

Creolin in Gonorrhea.—Gonorrhea, which has resisted other treatment, has frequently yielded in Dr. Margaretti's practice to irrigations, twice daily, with a solution of creolin of the strength of 5 to 8 per cent. administered through a hollow sound.—*Lancet*, August 18, 1888.

Sticking Plaster Treatment of Erysipelas.—Professor Wölfler of Graz, remarking that Otto had met with considerable success in treating erysipelas on the plan recommended by Barwell and Freer, viz: the application of white lead paint to the affected part, which they thought acted by keeping the air from the erysipelatous cocci, and so prevented them from multiplying—determined to carry out this principle of exclusion of air in a somewhat different and more effective manner. The substance he used at first was linseed oil varnish, but he found that not only was an impermeable coating necessary, but some degree of pressure as well. He then tried gutta percha paper fastened to the skin with chloroform. This, however, was not satisfactory and so he turned his attention to something simpler, viz: strips of isinglass sticking plaster about the breadth of a thumb. This proved exceedingly efficacious, the fever rapidly declining and the erysipelatous blush showing no disposition to spread.—*Lancet*, July 7, 1888.

MATERIA MEDICA AND THERAPEUTICS.

By Wm. Watt Kerr, M. A., M. B., C. M., Professor of Therapeutics, University of California, San Francisco.

The Oxygen Treatment.—The *Philadelphia Medical Times*, September 1, 1888, contains an interesting article on this subject by Dr. John Aulde. The writer very judiciously calls attention to the tendency existing among the bulk of the profession to leave this method of treatment in the hands of quacks and irregulars on account of the erroneous idea that it is too cumbersome, expensive and difficult for general practice. As a means for

obtaining perfectly fresh oxygen, the most convenient and inexpensive is by means of a preparation of peroxide of hydrogen, which, on being moderately warmed, gives off one equivalent of its oxygen in a state so decidedly active as to strongly resemble ozone. Although the quantity of gas given off in this manner is very much smaller than that which is generally inhaled from the ordinary iron or copper cylinders, the fact of its being strictly nascent appears to more than compensate for its diminished volume. Another method is by one of the portable generators that have been introduced recently and cost only about twenty-five dollars. The peroxide method is more convenient and consists in putting a small portion of a three per cent. peroxide solution in an inhaler together with a little clean water and applying heat; the evolution of oxygen soon follows, and the patient is permitted to practise inhalation from ten to fifteen minutes, three times daily; or, in cases where the inhalation is too laborious, five minutes or less will be sufficient, in which case it is advisable to increase the frequency of the administration. In this way the patient inhales pure, warm air, charged with oxygen, while carbonic acid, which ordinarily accumulates during pulmonary diseases and causes depression, is thrown off. The use of oxygen is simply an auxiliary, relieving many of the most distressing symptoms occurring during the progress of phthisis, but is not a specific. In cases where the respiration is too difficult to permit the use of an inhaler, the peroxide may be used in the form of a spray. Although Dr. Aulde's paper has particular reference to phthisis, the same treatment may be pursued with advantage in emphysema, spasmodic asthma, bronchial dilatation and grangrene of the lung.

Paraldehyde for Vomiting.—La Mourk, in the *Albany Medical Annals*, recommends paraldehyde for the vomiting of ovarian disease and pregnancy, or in the nausea of migraine. He gives forty drops in an ounce of simple elixir; a teaspoonful in water every half hour.—*Philadelphia Medical Times.* [I tasted paraldehyde—once—and can only explain the above by supposing that the stomach is simply paralyzed with astonishment that such a dose should be deposited in it. W. W. K.]

Pilocarpine.—The Editor of the *Medical and Surgical Reporter* calls attention to the danger of a fatal bronchorrhea following the use of pilocarpine, and mentions two cases of uremic convulsions and one of atropia poisoning in which this happened. As all the cases were in a condition in which death would in all probability have taken place, apart from the unfavorable effects of the pilocarpine, the editor admits that it may be questioned whether the bronchorrhea produced the fatal result. [Perhaps the following case from my own experience may be of some service in enabling our readers to arrive at a fair conclusion in the matter. Some time ago I gave to a patient, suffering from Bright's Disease, one-sixth grain of pilocarpine by the mouth. There had not been any convulsions, but the urine was scanty, the limbs edematous, the headache severe, while purgatives and the other usual remedies failed to afford any relief. In about ten minutes after taking the pilocarpine, the secretion of saliva was very much increased; in about half an hour copious mucus *râles* could be heard all over the chest, and the embarrassment of respiration increased

until the patient died in less than two hours after taking the medicine. There was no doubt that death was due to bronchorrhea. W. W. K.]

Ichthyol in Pulmonary Diseases.—This substance, obtained from a bituminous rock supposed to be deposits of fossil fish, has been used extensively in surgical and dermatological practice during the last few months. It is prepared by distillation, as the ammonium or sodium ichthyolate, soluble in water and perfectly miscible with fat or vaseline. These preparations contain about fifteen per cent. of sulphur in such intimate union that it cannot be separated without complete decomposition of the substance. It may be given in capsules in doses of fifteen grains, or it may be used as an inhalation in a twenty-five per cent. watery solution, and lastly, it is most frequently administered as an unguent. The mode of action is still somewhat obscure, but the experiments reported by DR. ZUEBZER, of Berlin, would indicate that it is a tonic by preventing tissue waste. He found that part of its sulphurous and azotic matter was retained in the system, and, as at the same time the weight of the patients increased, he argued that the matter retained in the system caused an increase of the albuminoids, into the constitution of which these compounds enter. The rapidity with which it reduces swelling when applied to local congestions, leads to the belief that it causes contraction of the capillaries. With its use in the treatment of skin diseases, such as chronic eczema, chronic urticaria, acne, intertrigo and lymphatic swellings, the profession is by this time comparatively familiar; but, DR. MAYS, of Philadelphia, writes in a recent number of the *Medical News*, recommending its use in various diseases of the chest. The chief indications for its administration are the cough and copious expectoration, which are so troublesome to patients suffering from chronic bronchitis, bronchorrhea or phthisis pulmonalis. Whether the improvement is due to a contraction of the capillary blood vessels, to checking inflammatory changes, to an action of the sulphur upon the bronchial mucous membrane, or to some other cause, remains a question for further investigation.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, Cooper Medical College, San Francisco, Cal.

Cocaine in Pleurisy.—DR. H. C MARSH writes to the *British Medical Journal*, calling attention to the use of cocaine for the relief of pain in the above disease. He recommends that one-fifth or one-fourth of a grain be injected sub-cutaneously at the most painful spot, and the injection repeated once or twice daily. He claims that not only is the pain relieved, but that cocaine is superior to morphine for this purpose, as it is free from much objectionable secondary effects, as constipation and a tendency to pulmonary congestion, while by contracting the vessels a most decided check is put upon effusion into the pleural cavity.

The Prognosis in Syphilitic Diseases of the Nervous System.—PROF. NAUNYN collected 325 cases of nervous affections due to syphilis, 155 (48 per cent.) of which were cured and 170 (32 per cent.) in no wise ben-

efited. Cases of epilepsy yielded the best results. Similar good results were obtained in neuralgic affections and paralyses of the basal cerebral nerves. Poor results were obtained in monoplegia, hemiplegia and paraplegia. The treatment, if beneficial, will manifest itself immediately. If by the end of the first week after the administration of iodide of potassium and the end of the second week after energetic mercurial treatment no benefit is obtained, then the outlook is hopeless. Any benefit derived from the specific treatment is first seen in improvement of the general condition. Heroic medication is necessary. Inunction is preferred in the administration of mercury.—*Deutsche medicin. Wochenschrift*, July 12, 1888.

Chronic Intoxication from Tea Drinking.—Doctor Brullard (*El Siglo Medico*, from a study of seventy-four cases, concludes as follows: 1. The action of tea is cumulative. 2. The effects are most pronounced in young people, in the anemic and debilitated, but toxic symptoms have been observed in persons of good constitution. 3. The quantity of tea necessary to produce toxic effects must be more than five cups daily. 4. The symptoms are: Loss of appetite, dyspepsia, palpitations, nausea, vomiting, nervous excitement, disturbances of intellect, and the patient may even become maniacal. There are also present, cardiac pains, radiating to the left arm and various parts of the chest.—*Lyon Médical*, July 1, 1888.

A New Yellow Fever Microbe.—Dr. Paul Gibier, who in connection with Dr. Domingoes Freire, discovered a microbe in the blood of yellow fever patients, afterwards withdrew his share in this discovery before the Paris Academy of Sciences and declared that after new researches and experiments he had arrived at totally different results from those obtained by Domingoes Freire; that he had not been able to find the same microörganism in the blood, nor any yellow fever microbe in the urine. This was on the 13th of February, 1888. On the 24th of July, at a meeting of the French Academy of Medicine, M. Gibier made the following statement as the outcome of his latest researches in Havana:

1. Neither in the blood, bile, serous fluid of the pericardium, nor in the abdominal viscera, except the intestinal canal, has he found, in the majority of yellow fever cases, any microörganisms. In those exceptional cases, where they are present, they are of variable species and are probably introduced accidentally or through the circulation from the intestinal lesions. 2. The intestine of yellow fever patients contains a dark colored toxic matter. 3. This matter contains a bacillus which dyes the matter wherein it develops. It is either straight and short or elongated and bent. It liquifies gelatine; introduced into the intestines of guinea pigs and dogs, it causes serious disturbance or death with the formation of a similar black matter as found in the bodies of yellow fever patients. The cultures of this bacillus exhale an odor resembling that of *vomito prieto*. A temperature of 60°C. destroys it in ten minutes; cold of 10°C. does not kill it within an hour. Desiccation in open air and in the shade destroys it in 24 hours. It is easily cultivated in sea water, and lives at least six months in contact with common microbes. A temperature of

more than 20°C. is required for its development; it does not seem to produce spores. The curved shape which it forms in old cultures may place it in the class of the spirillia. Gibier thinks that from its ability to live in sea water, this microbe is very likely the cause of the black vomit which is almost confined to port towns. 4. The presence of the black toxic matter, which is invariable in yellow fever and the early gastric symptoms which persist nearly through the whole course of the disease, the absence of microbes in other parts than the intestinal canal, are greatly in favor of the theory of intestinal origin. In accordance with this theory, the treatment of yellow fever at Havana consists mainly in repeated purges and disinfection of the intestines.

The theory of M. Gibier, provided his observations are more correct than those on which the now exploded inoculations of Domingoes Freire were founded, seems very acceptable. The old and time honored practice of giving a large dose of castor oil at the first attacks of illness in yellow fever ships and ports, would be quite in conformity with this new bacterial hypothesis. The turpentine treatment and enemas with disinfectant solutions (camphor, etherial, oils, benzoic acid, in the shape of paregoric), have been used in Brazil with evident success. Decidedly not in harmony with the bacterial theory stands the fact well-known to all sailors that attacks of yellow fever often occur after exposure to a sudden chilling of the body with suppression of cutaneous perspiration and congestion of the internal organs. Could the microbe be already present and could it prosper suddenly under this intestinal congestion? and would it become ptomaine manufacturing under such circumstances on a larger scale? A microbe which is, so to speak, an "old salt," may be expected to take advantage of the weaknesses of his surroundings. Not quite in keeping with the theory of a marine microbe may be considered the spread of yellow fever in 1867 to 300 miles from the coast in Texas and to the interior of Cuba this summer, unless it is assumed that it may flourish also in fresh water; but then, why does it not move farther inland like cholera? If it is, like this disease, introduced by the mouth, many cases of infection by a few hours sojourn in a certain locality where no sick persons are present, may be well explained. In yellow fever, however, as in cholera epidemics, many persons must be infected by the introduction of the microbes who never developed the disease, because of their individual resistance. To strengthen this resistance we remove all physiological drawbacks and practice what we call sanitation.—*Sémaine Médicale.*

The Treatment of Chronic Bacillary Phthisis.—Dr. Worms introduces the following treatment for this affection, based on the fact that the bacilli of tuberculosis best develop at a temperature of 37.5°C. and that any material alteration in temperature will at once arrest their growth. He seeks by the inhalation of cold air methodically used, to secure an anti-bacillary action. This is best obtained by having the patient live most of the time in the open air, and with the mouth wide open, inhale cold air.—*St. Petersburger med. Wochenschr.*, August 18, 1888.

Sacramento Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: OCTOBER, 1888.

METHYLENE.

Methylene bichloride, which was first brought before the profession as an anesthetic by Dr. B. W. Richardson in 1867, has not come into such general use as its apparent merits would deserve. It has recently been brought into notice in a paper by Dr. Wm. H. Day,* who has had extensive experience with the drug. He says, "It is a mystery to me that an anesthetic, so safe and effectual as methylene, should not have been more generally employed by the profession," and summarizes its advantages as follows: "It is less likely to cause vomiting, it is more agreeable to inhale and there is less excitement preparatory to the stage of anesthesia; rarely more than three or four drachms are required for an operation lasting half an hour and consciousness returns in a few seconds after inhalation is discontinued." In point of safety he characterizes it as "first class," and in an experience of 1230 administrations has met with nothing to alarm him. Sir Spencer Wells, who has employed it, to the exclusion of other anesthetics, for twelve years, is strongly impressed with its great superiority, and Dr. Field and other observers are equally warm in its commendation.

Dr. Richardson, in his ever interesting *Asclepiad* (3d quarter 1888), reviews his previous report on the subject and adds his further experience of twenty years. Bichloride of methylene (C H_2CL_2), is made by the action of chloroform on zinc, a little absolute alcohol being at first added to start and facilitate the action. It is a colorless fluid, with an odor similar to chloroform, the specific gravity is 1,344, and the boiling point, though variously stated, is believed by Dr. Richardson to be 111° F. He was first led to employ it from the fact that he regarded the chlorine in chloroform as the dangerous element. Chloride of methyl (C H_3CL), was first tried, but was found to be unmanageable. The bichloride, which con-

*British Medical Journal, July 14, 1888.

tained one atom less of chlorine than chloroform, was then adopted. Methylene differs from chloroform in its action, in producing anesthesia more quickly and in maintaining the effect for a longer period. Recovery, when commenced, is far more rapid and there are no tedious after-effects. From ether it differs in being more prompt in its action, the recovery is more rapid, and there are no after-effects. The *post-mortem* appearances in fatal cases are quite distinct.

	Chloroform—	*Ether—*	*Methylene—*
Lungs:	Bloodless.	Intensely congested.	Contain blood, not congested.
Heart:	Right side gorged.	Blood on both sides.	Blood on both sides.

Dr. Richardson concludes that bichloride of methylene holds a place between ether and chloroform, being safer than chloroform, but not as safe as ether. In efficacy, it is equal to chloroform, while it is quicker in action; more persistent and far more manageable than ether. Altogether he does not know of an anesthetic which combines so many advantages with so few dangers.

Mr. Dudley Buxton* approaches the subject from the opposite side. In considering the question whether the methylene used *is* bichloride of methylene, he brings forward important evidence that it is not, and that the pure article is not an anesthetic. Dr. Richardson, in his earlier experiments, employed pure methylene and found by personal experience that it *was* an anesthetic. The cost of its production being prohibitive, he subsequently ascertained that a less pure product, which contained a small quantity of alcohol, chloroform and water, was more satisfactory as an anesthetic and a more staple compound. Dr. Buxton evidently regards the anesthetic methylene as a diluted chloroform and says, that "the difference (in effect) between it and pure chloroform is one of degree, not of kind." In support of this he cites physiological experiments as well as the clinical observation, that a mixture of chloroform and alcohol will give identical results. Dr. Richardson recognizes the existence of a class of patients, the *morituri*, that die under slight shocks of any kind. These subjects have died under every anesthetic and have furnished their quota with the use of mythelene. It is a familiar argument of the chloroformists that when ether shall have been given as many times, the death rate will more closely approximate that of chloroform and this can be used with greater

*British Medical Journal, July 28, 1888.

force in the case of methylene. At present in the hands of a few, and in a comparatively limited number of administrations, there have been fatal results, and there is no reason to suppose that a more extended experience would fail to supply a similar percentage.

Admitting that methylene is safer than chloroform, and assuming that it is less so than ether, we may contrast it with the latter agent: Methylene, to be administered satisfactorily, demands a special apparatus, its great volatility and low boiling point precludes the use of the open method. In this respect it does not differ from ether, for we have always contended that to produce unfailing anesthesia with economy of time and ether, an inhaler is absolutely necessary. An element of danger is here injected into the case. The apparatus for methylene is somewhat complicated, and, as Mr. Buxton remarks, while ether may be given to saturation, a higher percentage than four of methylene is unsafe. It is this feature which would undoubtedly render its administration in inexperienced hands and in emergencies, more fatal. Regarding the certainty of administration there need be no comparison as ether will never fail when properly handled. To compare the time required to produce insensibility we must have more definite figures. Dr. Richardson has seen teeth painlessly extracted after an inhalation of 19 seconds, and this has never been attained with ether. From his own experience he says: "I generally produce good narcotism within five minutes," a statement which any competent etherist can repeat. Regarding the quantity of the anesthetics required, it is apparent that a much smaller amount of methylene will be consumed. It therefore appears that the superiority of methylene consists in the smaller quantity required to produce anesthesia and in the absence of after effects. The first of these considerations is more than balanced by the greater cost of methylene, and against the second may be placed the acknowledged greater safety of ether. We believe that the anesthetic has yet to be discovered, which for certainty, expediency and safety will equal ether when administered with a good inhaler.

NOTES.

A Case of Retributive Justice.

Some months ago a wealthy rancher of this county conducted himself in such a manner that his family became apprehensive for their safety, and decided to confine him in an asylum. His re-

sentment was principally directed against his wife, a woman of excellent character, advanced in years, the mother of a large family, whom he accused of having had intercourse with some of the farm hands. He stated that on several occasions he was on the same bed on which these acts were perpetrated, but in a cataleptic condition, the result of chloroform, which she had administered. The method of administration was interesting. She had placed a handkerchief, saturated with chloroform, in the pocket of a dress which hung four feet from the head of his bed. On these facts and much additional evidence, three physicians decided that he was a monomaniac and that it was unsafe for him to be at large. A jury was impanelled, and in the face of the medical testimony and overwhelming evidence furnished by the accused and his family, they acquitted him of the charge. The result was mainly due to the efforts of able counsel for the defense. The accused had numerous friends who firmly believed in his sanity, and regarding him as the victim of designing people, helped him with testimony and funds. One man in particular was earnest in his protests against the outrage sought to be perpetrated upon his friend. Several months after the trial he asked the victim to witness a will of which he was the executor; this was duly done. Subsequently the testator died and the will was contested, when the same man testified upon oath that he never signed or saw the will, denied his own signature, and positively accused his friend, the executor, of sequestrating $1000 of the funds involved. Many similar cases have, no doubt, occurred, and it is most desirable that they should be recorded as furnishing important evidence on the intricate subject of mental jurisprudence.

Drunk or Dying.

Recently a man was brought to the city prison, at San Francisco, in an unconscious state. He had been found lying in a doorway and, as it was supposed that he was drunk, he was placed in a cell. Subsequently it was ascertained that he was dying, and he expired shortly after being removed to the Receiving Hospital. This unfortunate occurrence is a repetition of that which has frequently happened in large cities and emphasizes the necessity for observing two simple rules. First, a person who is unconscious from any cause, should not be left alone but should remain under constant observation. Second, when an individual is found to be profoundly insensible, he should be seen by a phy-

sician at the earliest opportunity. This is the more important if it be recollected that it is often impossible for the most experienced practitioner to arrive at a correct diagnosis. In this instance the case was obviously fatal, the cause (which subsequently transpired) being a violent blow on the neck.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting August 21st, 1888.

The President, J. R. LAINE, M. D., in the Chair.

Subclavian Aneurism.—THE PRESIDENT exhibited a case of tumor in the left supra-clavicular region which he believed was aneurismal. The subject was a colored man aet. 50 years. The tumor pulsated in every direction and extended well above the clavicle at the middle third. Members present examined the case and concurred in the diagnosis.

DR. T. W. HUNTINGTON reported *A Case of Laparotomy for Knife-Wound of the Abdomen.* [Published at p. 452.]

DR. W. A. BRIGGS had been present at three operations of this character. The result in two had been fatal. In the first case (his own), the operation had been delayed until three days after the accident. A wound of the cecum was found and fecal matter had passed into the abdominal cavity. The patient died from general peritonitis. The second case proved fatal from the gravity of the injury. In Dr. Huntington's case he believed that the operation was justifiable and felt at the time that the patient's chances had been much improved by the operation. He advocated early operation. He thought that a diagnosis of intestinal perforation could be made if there was much pain with collapse.

DR. H. L. NICHOLS thought that in the case reported the result would have been fatal without operation.

DR. J. H. PARKINSON believed that the chances of life were much greater with laparotomy than without, and he considered the operation both justifiable and indicated in all penetrating wounds of the abdominal cavity. There was a point of medico-legal interest in these cases as the majority of them were the result of assault and therefore two lives depended on the issue. It had been suggested that where death ensued the question might arise, Did the operation influence or even determine the fatality? He believed, however, that the surgeon should act solely according to his judgment in the case, unmindful of external considerations and that consequently he would be always able to justify his conduct.

DR. A. E. BRUNE would take into consideration the probable size of the wound of the intestine. In case of wounds from small projectiles, it had been his experience that by rest and appropriate treatment recovery would ensue without operation. The result would be largely influenced by the bowel being full or empty.

DR. W. F. WIARD believed that in view of the gravity of these cases an exploratory incision was always justifiable.

The PRESIDENT said that there was comparative safety in performing laparotomy. As for the medico-legal aspect of the case in punctured or lacerated wounds of the intestine recovery was almost impossible unless the abdominal cavity was opened and the wounds closed.

DR. HUNTINGTON said the reasons for performing laparotomy are pressing ones and connected with grave considerations. The operation should be performed without hesitation or delay. The mortality from laparotomy

was about 39 per cent. He believed that surgeons should be familiar with the methods of performing the operation so as to avoid delay in cases of emergency. In this case on opening the abdomen he at once recognized the necessity for an operation. One week after the operation the original wound opened and discharged about ℥ii of pus. He thought that this was due to defective closure of the wound, as he believed that the pus came from a pocket in the abdominal wall. He believed that preparation for the operation was the keynote of success.

DR. NICHOLS read a brief paper on *Hernia*, introducing the subject of its radical cure for discussion.

DR. Z. T. MAGILL had operated on two cases by injecting fluid extract of white oak bark. The first case was successful; the second, he operated on twice with some benefit.

DR. I. E. OATMAN had had some experience with congenital hernia but had always succeeded in curing his cases with a truss. In umbilical hernia he used a cork filed to a cone and secured in place with strips of adhesive plaster. He had always succeeded in reducing hernia in the adult by position and taxis without an anesthetic.

DR. T. W. HUNTINGTON believed that an effort should be made to induce a radical cure in every case that at all admitted of operation. He had operated in one case of omental hernia and the case was, so far, a success. He felt that taxis was too often persisted in for a length of time which was directly injurious.

The PRESIDENT said that when the bowel was in good condition he believed in dissecting out the sac and excising it.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting August 13, 1888.

The President, J. D. ARNOLD, M. D., in the Chair.

New Members.—DR. J. W. HEERDINK and DR. LOUIS BAZET were duly elected members of the Society.

Resignations.—The resignations of DRS. G. F. G. MORGAN, F. H. DENNIS, J. C. S. AKERLY and J. H. HEALY were read and accepted.

DR. A. ABRAMS read a paper on *The Pneumatic Cabinet and its Use in the Treatment of Pulmonary Diseases* (published at p. 407, No. 9). He showed a patient who had been operated upon for empyema, but in whom the wound had not closed, and there was still considerable secretion of pus.

DR. C. G. KENYON said that he had operated upon the patient in question, by removing about two and a half inches of two ribs, thus permitting the free escape of pus which was being rapidly secreted. He believed the result would have been better had a larger section been made.

DR. A. P. WHITTELL said that the cabinet seemed to offer many of the advantages associated with a change of altitude. He did not think that by means of the rubber band it was possible to limit the expansion to one or two ribs, as the attachments of these bones and the mechanism by which they were elevated and depressed, strongly favored a conjoined action. Such an arrangement as the cabinet would be excellent in overcoming the spasmodic contraction of the smaller bronchi in asthma.

DR. H. M. SHERMAN doubted the efficacy of using the cabinet in capillary bronchitis, since the danger in that disease was the passage of the exudation into the air cells and the increased inspiratory pressure would tend to produce this very result. The method could not be compared to change in altitude, as in the latter there was not any change in the relation between the internal and external pressure.

THE PRESIDENT had obtained his best results in the treatment of acute and chronic bronchitis or incipient phthisis. He believed that making the apices of the lungs take part in respiration was a decided prophylactic against the last mentioned disease. In breaking down pleuritic adhesions it is much more thorough and effective than the gymnastic method.

DR. A. ABRAMS, in replying, said that in the empyema case exhibited we had a pus secreting cavity which had not yielded to treatment; his object, therefore, was to destroy the cavity by inflating the lung. There was no doubt that the intercostal muscles could act by themselves and, therefore, local expansion was possible, although to a limited extent.

Regular Meeting August 28, 1888.

The President, J. D. ARNOLD, M. D., in the Chair.

DR. A. BARKAN reported and exhibited several cases of paralysis of the ocular muscles. After dwelling for sometime upon the causes and general features of the disease, he referred to its significance as a symptom in general diseases, and expressed the opinion that paralysis of the ocular muscles was unsatisfactory as a means of diagnosing the seat and nature of brain lesions; although he admitted that complete ocular paralysis was generally due to injury at the base. It was also a frequent precursor of tubercular meningitis and under such circumstances was most frequently seen in children. The prognosis is generally more favorable in adults, as in such cases it is frequently due to a specific cause. In other patients, however, it is associated with tabes dorsalis, disseminated sclerosis and progressive paralysis of the insane. In answer to a question Dr. Barkan said that he believed the exophthalmos in paralysis to be due to want of tone in the ocular muscles.

DR. A. P. WHITTELL said that the cases mentioned tended to show the broadness of the field of the specialist and that their treatment must frequently be directed towards the constitution instead of being limited to the eye and its appendages.

The discussion afterwards was chiefly limited to ocular paralysis as a symptom of tertiary syphilis and the most appropriate form of treatment.

THE PRESIDENT asked whether Dr. Barkan preferred mercury or iodides in these ocular tertiary symptoms.

DR. BARKAN replied that whenever ocular symptoms appeared after a specific lesion he regarded them as an indication that the appropriate treatment had not been continued for a sufficient length of time. His custom was to order thorough inunction of about one drachm *per diem* for six weeks and afterwards to put the patient upon iodides; his reliance, however, being chiefly based upon the mercurials.

DR. J. H. STALLARD thought that in syphilis a mild course of mercury should be kept up for at least one year after reception of the initial lesion.

DR. M. C. O'TOOLE said that the most obstinate cases of ocular trouble, attributable to a specific cause, had happened in persons addicted to the habitual excessive use of alcohol. He never had seen a specific case of partial degeneration of nerves of the cerebro spinal centre that did not receive benefit from inunction, but it was otherwise with the sympathetic system.

DR. GOODFELLOW, who had been invited to take part in the discussion, said that when traveling through Mexico he visited several towns, in none of which, within the memory of man, there had ever been a physician. He saw many cases of syphilis and many persons who had suffered from it, all doing so well without treatment that he was led to believe that syphilis is a self-limiting and self-curative disease, doing comparatively little damage. In Arizona, on the other hand, he saw many tertiary

cases in men who had been partially treated and he thought that the effect of treatment was to make them worse.

Dr. F. B. Kane did not like to treat visceral syphilis with mercury; he preferred the iodides, as he agreed with Hutchinson that the tertiary stage is not syphilis, but new formations left by syphilis. The cases in question would come under this head, and under such circumstances he had found iodide succeed where mercury failed. He would like to ask Dr. Goodfellow whether the comparative immunity of the Mexicans might not be due to a hereditary protection; just as among the Portugese the disease ran a milder course from this cause. There was, no doubt, that syphilis, like many other diseases, was self-limiting and left no more frequent sequelæ than small-pox, scarlet fever and similar conditions.

CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.

First Triennial Meeting Held in Washington September 18, 19 and 20, 1888.

First Day—Tuesday, September 18th—Afternoon Session.

Report of the Executive Committee.—The meeting to receive the report of the Executive Committee and for organization, was held at 1 P. M. Tuesday, in the Grand Army Building, and was called to order by Dr. William Pepper, of Philadelphia, Chairman of the Executive Committee. Dr. Pepper said: On behalf of the Executive Committee, I have to announce the manner in which we have discharged our responsible duty. The present meeting is the result of prolonged deliberation which began to take shape more than four years ago, before the attention of the medical profession became occupied with the preparation of the meeting of the International Medical Congress, but all action was deferred in order that there should not be the semblance of interference with that important meeting. This delay has served to render more conspicuous the necessity for this organization. In order to produce the best scientific results, it is essential that the members in attendance shall be reasonably limited, and that as far as possible the same men shall attend successive meetings securing a continuity of intellectual life and activity. A large proportion of those interested in the development of such an organization are, as I am myself, warmly attached to the American Medical Association and determined to exert their influence to maintain and promote the success of this great national organization. Your Committee ventures to hope that their provisions will meet the unanimous approval of the Congress. We have recommended that the sessions shall be triennial. We have jealously guarded against the admission of parliamentary business, the functions of the Congress are designed to be absolutely or exclusively scientific. We have also guarded the independent sovereignty of each participating society. Lastly the Executive Committee has reached the conclusion that the selection of the president of each Congress shall be intrusted to the Executive Committee then in office. Close study of the conditions of this Congress have led the Committee to feel that if this organization was to have the effect of favoring the multiplication and subdivision of special societies, it would be nothing less than a calamity. We have, therefore, provided that the admission of new associations shall be secured only by the unanimous vote of the Executive Committee. It remains only to add that in exerting the privilege of selecting a President for the first Congress of American Physicians and Surgeons we feel that we have been guided to the choice of a man whose admirable personal character, whose high attainments and whose illustrious services in the cause of literature of science and of the entire medical profession, mark him as entitled to this great honor

and distinction. It gives us, therefore, the utmost gratification to present to you our President, Dr. John Shaw Billings, and to announce that the Congress of American Physicians and Surgeons is now duly organized.

The President, Dr. J. S. Billings, then took the Chair and responded in a brief address.

The Address of Welcome was delivered by Dr. Samuel C. Barey, of Washington.

By-laws.—The consideration of the By-laws was then taken up. Their provisions are as follows: The organization is to be known as the Congress of American Physicians and Surgeons and to be composed of National Associations for the promotion of medical and allied sciences. The sessions will he held triennially in the city of Washington. The officers are a President, Vice-Presidents, Secretary and Treasurer and an Executive Committee. The Executive Committee, composed of one member elected by each participating society, shall have charge of the duties pertaining to the organization and preparation of the Congress, including the election of officers and a committee of arrangements. It shall superintend the publication of the transactions. The expenses of the Congress shall be borne by the participating societies. New associations shall be admitted by unanimous vote of the Executive Committee.

Evening Session.

The Medical Relations of Acute Intestinal Obstruction.—Dr. Reginald H. Fitz, of Boston, selected as the subject of his paper the diagnosis and medical treatment of the acute internal, mechanical varieties of intestinal obstruction. The only causes recognized were strangulation from adhesions, vitelline remains, peritoneal slits, pockets and rings; intussusception, twists and knots; abnormal contents, strictures and tumors. The evidence presented resulted from an analysis of 295 cases, collected from medical literature since 1880. The most constant symptoms of obstruction were shown to be pain, vomiting, tympany and tumor. Stoppage of the bowel was not regarded as the most essential symptom in diagnosis, since frequent loose stools characterize intussusception and may occur in other varieties of obstruction. Too much attention directed to this symptom leads to erroneous diagnosis, since it is of frequent occurrence in peritonitis, and often results in irrational and injurious treatment. The physician is called upon to decide whether the given case is one of acute obstruction, then its seat and cause, and finally what is to be done. The evidence offered showed that the diagnosis was to be made by excluding the various causes of peritonitis. Its seat in the large or small intestine was to be determined by injections, under high pressure, when necessary. The variety was, for most practical purposes, an intussusception; or a twist of the large intestine and strangulation, or gall stones in the small intestine. The differential diagnosis depended on the relative frequency of these varieties, the age of the patient, the antecedents and immediate symptoms. The treatment consisted in the attempt to relieve intussusception of the large intestine by forced injection under anesthesia with massage, and to treat obstructing gall stones by opium, possibly with the aid of laxatives and electricity. All the other varieties of acute obstruction require surgical treatment. The latter treatment is also necessary on or before the third day in cases of intussusception not yielding to forced injections, and in gall stones when the symptoms become urgent.

The Surgical Treatment of Intestinal Obstruction.—This paper was read by Dr. N. Senn, of Milwaukee. He claimed at the beginning that all cases of true intestinal obstruction are, in every sense of the word, surgical affections. Intestinal obstruction is present when, from mechanical or from dynamic causes, the intestinal canal becomes completely or

partially imperforate, interfering completely or partially with fecal circulation. It is important that a distinction be made between the cases due to mechanical and those due to dynamic causes. In the former, the surgeon is expected to modify the mechanical cause; in the other, the surgical treatment is limited to diminishing intra-abdominal pressure. Cases of internal intestinal obstruction should be considered in the same light as cases of strangulated hernia. The time that such a case may safely be permitted to go without operation varies. In some, twenty-four hours will suffice for the occurrence of irreparable pathological changes; in others, a much longer time may be allowed to elapse. Operation should be performed as soon as the diagnosis is made. The surgical resources in the treatment of internal obstruction were taken up seriatim. *Irrigation of the stomach* was first referred to. All forms of intestinal obstruction, no matter what the cause, are aggravated by anything that increases the hydrostatic pressure on the proximal side of the obstruction. Irrigation of the stomach relieves this, and also diminishes the intra-abdominal pressure; it not only empties the stomach, but evacuates the contents of a number of feet of the intestine. It, however, will not do to rely upon this as a radical measure, except when the cause of obstruction is of a temporary character. This measure should always be performed before operation, as it prevents vomiting. An antiseptic solution should be used in the irrigation. *Distension of the intestine with fluid:* The mechanical effects of this measure are limited to the colon. The fluid does not pass beyond the ileo-cecal valve. Why should we not in these cases resort to the lightest possible substance known, hydrogen gas, which is harmless, readily obtained and aseptic? A pressure of one-fourth to two pounds to the square inch overcomes the resistance of the ileo-cecal valve, and forces the gas from the anus to the mouth. A pressure of eight to ten pounds to the square inch is required to produce palpable injury of any of the coats of the intestine. If perforation takes place, there is at once a positive indication for opening the abdomen. The fact that perforation has occurred is shown by the disappearance of the liver dullness. *Manual exploration* by the rectum is a useful diagnostic and therapeutic measure where the obstruction is below the sigmoid flexure, provided the surgeon has a small hand. *Taxis and massage* should be limited to cases where the obstruction is due to intra-mural causes, and to a few cases of invagination. Uniform, uninterrupted, equable *pressure of the abdomen* is useful in preventing hyper-distension in those cases especially where dynamic causes are feared. *Enterotomy*, so frequently practised in the past, he hoped had become very nearly obsolete. It should only be employed when it is clear that the patient will not be able to pass through the ordeals of laparotomy. *Lumbar Colotomy:* In cases where this operation was formerly employed we can often, by uniting the portion of bowel above the obstruction with that below by means of decalcified bone plates, avoid the necessity for colotomy. He had specimens showing that a dilated, congested bowel can be repaired when excluded from the fecal circulation in this way. The author had in the past eight months performed gastro-enterostomy in four cases by this method. In all of these cases the operation was a success, although in one case the patient died because the operation had been postponed too long. In one case the advice of Leucke had been followed, and the first presenting portion of the bowel had been fastened to the stomach. The patient continued in good condition for nine days when symptoms of obstruction came on and he died in three weeks. It was found that the connection with the bowel was eight feet below the pyloric orifice, and that the movements of the bowel had produced a sharp flexion of the intestine causing obstruction. Gastro-enterostomy in incurable carcinoma is a safe operation and one which the surgeon owes to all such patients.

Dr. Arthur Durham, of London, had taken much interest in this subject. There is no class of cases which are more serious or more dangerous than those of intestinal obstruction. He agreed with Dr. Senn, that usually in these cases, the sooner the surgeon is called the better. As soon as the diagnosis is made the operation should be performed. In some cases it should be done before a positive diagnosis is reached, and in order to clear up the diagnosis. Under such circumstances the surgeon must be prepared to meet the indications that present themselves. In trying to reach a diagnosis, the probabilities in favor of this or that condition, based upon statistics, should not influence us; but the case should be studied on its own merits and treated on the indications before us. In regard to the injection of hydrogen gas, he suggested the possibility of the formation of explosive compounds and thought that atmospheric air might be substituted. He recommended that in cases of acute obstruction in which there is reason to believe that the cause is in the small intestine, provided the symptoms are severe and urgent, the proper thing, even if an absolute diagnosis has not been made, is to open the abdomen and search for the cause and relieve it as best we can. On the other hand where the cause is in the large, rather than the small intestine, there is not the same degree of urgency. He strongly advocated lumbar colotomy in certain cases. In some cases after colotomy there has been a gradual restoration of the bowel and the patient has recovered completely.

Dr. William Ord, of London, admitted that there was often a great deal of difficulty in the diagnosis. He was in favor of the views of Dr. Fitz and claimed a little time before resorting to operation. In some of these cases under the use of hypnotics and time the cause of obstruction had disappeared. When, however, there is mechanical obstruction the case must sooner or later go into the hands of the surgeon. This time should be a short one. The operation is a serious one especially in people over fifty years of age. He had often seen the operation performed, and frequently fail, in those cases where there was the most reason to expect success.

Mr. Thomas Annandale, of Edinburgh, said that these cases of obstruction should be divided into two classes, the acute and the chronic. In acute cases medical measures should be tried, but not continued too long. If the symptoms are urgent the surgeon should be called at the end of 48 hours; the sooner the abdomen is opened the better. In the chronic cases we may wait a considerable time, even until the symptoms become acute. The treatment should then be that applicable to a case of acute obstruction. He had largely given up lumbar colotomy which he had employed more particularly in rectal obstruction, and resorted to inguinal colotomy as a simpler and not more serious operation in most cases.

Dr. N. Senn, in closing the discussion, stated that there was not the least danger in the use of hydrogen gas. He had performed many experiments on animals and had used the procedure in man. In cases of intestinal perforation it aids the diagnosis and allows the surgeon to determine whether or not all the openings have been closed. In a recent case of gun-shot wound, eleven openings near the ileo-cecal valve were closed, and a twelfth was revealed by the hydrogen gas at the point where the peritoneum is reflected from the bowel to the bladder. . The patient is doing well one week after the operation.

Second Day—Wednesday, Sept. 19th—Evening Session.

Cerebral Localization in its Practical Relations.—Dr. Charles K. Mills, of Philadelphia, read a paper on this subject. In his introductory remarks, the speaker referred to the fact that from the clinical observation of practical physicians sprung the conceptions out of which de-

veloped the science and art of cerebral localization. Allusion was made to the discoveries of Bouillaud and Broca on speech localization; to the announcement by J. Hughlings Jackson in 1864, that certain convolutions superintended the delicate movements of the hand which were under the immediate control of the mind and to Hitzig's researches having originated from his observing certain ocular movements during galvanization of the heads of his patients. Brief reference was made to the history of American work in localization; to the investigations in 1874 of the New York Society of Neurology and Electrology; to Putnam's discovery that irritation of the white matter beneath definite cortical centres, produced movements similar to those caused by irritation of the centres themselves; to the labors of Wood and Ott on the heat centres and the light thrown by these investigations upon the mechanism of fever and the action of drugs upon different forms of high temperature. Turning to the surgical aspect of cerebral localization, he considered first the forms of disease and injury in which it is a valuable aid to diagnosis; and secondly, the topographical diagnosis of the parts of the brain accessible to surgical interference with some sources of error in such diagnosis. The forms of disease in which such diagnosis has been used, are intra-cranial tumors, cysts, fractures, hemorrhages, abscesses, and discharging cortical areas. In considering the localization of brain tumors, Dr. Mills referred to 20 cases of autopsies occurring in his own personal experience in about one-half of which the tumors were in surgically accessible areas and in at least one-fourth successful operations might have been performed. He advocated from this experience the excision of old gummata, and also, in special cases, of tubercular growths. The value of localization was shown in cases of fracture when the extent of the unseen damage could not be told by the position and character of the visible lesions Of the different forms of intra-cranial hemorrhage, sub-dural, cortical and intra-cerebral, were most amenable to localizing diagnosis. The rules for the local diagnosis of these forms of hemorrhage were then given. Dr. Mills advocated the performance of trephining in exceptional cases of hemorrhage into the ganglia and capsules—cases in which symptoms indicated that the bleeding had not broken into and inundated the ventricles. From the sections, the best site for operation in such cases all things considered, would be in the anterior portion of the first or second temporal gyrus. He favored Hughlings Jackson's suggestion of excising localized cortical areas even when coarse lesions could not be made out, in cases of spasm, beginning locally or deliberately. The inaccessible areas had been narrowed down by the venturesome surgical explorer and had become reduced to the middle regions of the base and its bordering convolutions, the corpora quadrigemina and the pons.

The old method of subdividing the motor zone into three elliptical or circular areas from above downward was considered insufficient; but the neurologist should be able to locate for the surgeon from a study of motor phenomena, at least seven or eight positions for trephining; these positions being selected by a close study of the initial or signal symptoms, the serial order of movements, and also of the amount and character of the temporary paralysis after the seizure and the method of extension of the persisting palsy. Dwelling upon the sources of error in motor localization, the question of reflex spasm, of unilateral convulsions due to uremia, lead and other toxic agents, and to hysteria and hystero-epilepsy, were briefly discussed. Sufficient diagnostic difficulties are still present to make it important in the light of the tremendous impetus towards operation, to carefully examine all questions of differential diagnosis. In certain spasmodic affections, the resemblance between those clearly of reflex origin and those as demonstrably central, was very striking.

With reference to sensorial localization, cutaneous and muscular, the speaker believed that the evidence was becoming stronger every day in

favor of the existence of a zone for the sensations of touch, pain and temperature, separate from cortical motor areas. His view was that the region for general sensation, including touch, pain, temperature, and, perhaps, pressure, location and muscular sense, could be divided into special areas for the various distinct portions of the body, and that these centres lay alongside and had close anatomical and morphological relations with corresponding motor centres, but that they were not identical with them. He located these sensory areas in the gyrus fornicatus, the hippocampal gyri, the pre-cuneus and the lateral postero-parietal region. The practical conclusion was, that the neurologist and surgeon must depend upon motor symptoms alone in fixing the site for operation in cases where the motor lesions were definite. When positive sensory symptoms were present, they might sometimes serve to aid in locating more exactly the position for operation, but the data were not sufficient for positive reliance. Dr. Mills concluded by saying that the discoveries in cerebral localization with the achievements in antiseptic surgery, constitute the greatest triumphs which adorn the history of the noble science and art of medicine.

Cerebral Localization in its Surgical Relations.—Dr. Roswell Park, of Buffalo, read a paper upon this subject. The essay was devoted purely to the surgical aspects of the subject, and omitted consideration of those cases in which operation is dictated by a study of the subjective, rather than of the objective features.

Cerebral Topographical Anatomy.—The areas which most concern the surgeon, are those which cluster around the fissure of Rolando. A few bony prominences deserve attention in this connection: that of the point of the nose known as the glabella; the external occipital protuberance, known also as the inion; the point of the vertex, half way between these two, the bregma; the external angle of the orbit, the tip of the mastoid process, and the lower border of the alveolar process of the upper jaw. The fissure of Rolando has its upper end about five centimètres back of the bregma, but does not run quite in the middle line; its lower end lies about a half centimètre behind the auriculo-bregmatic line, and a little above an imaginary line, projected backward from the superciliary ridge—thus the lower end of this fissure will be found about six centimètres above and a little behind the external auditory canal, or about an inch behind the bifurcation of the fissure of Sylvius In regard to the convolutions, it must be stated that lesions of the dura mater overlying motor areas are not always to be distinguished from lesions in the cortex beneath. It is enough for the surgeon that a lesion of some kind can be located with reasonable accuracy. It matters not whether this is an old, irritative lesion, an acute suppurative process between the bone and the brain, or an abscess or tumor of the brain itself. The indication for exploration is just as strong in either case.

When and Where one can Trephine with Safety.—The safest rule is to first apply the trephine over those areas which do not overlie large vascular channels. Afterward the opening may be extended in any direction and to any required extent. The greatest hesitation is with regard to opening one of the sinuses. Two dangers attend such an accident—one, fatal air embolism; the other, profuse hemorrhage. The former danger is almost a theoretical one, and the other may be overcome by plugging the sinus or closing its wound with a fine needle and suture.

Cerebral and Cerebellar Abscess.—Bergmann has shown that abscess of the brain has but one result—death; and that the surgeon's knife offers the only relief. So far as we know there is no such thing as idiopathic abscess of the brain; it is always the result of some external wound of the head or some extension from diseased surrounding bone. The only exceptions to this statement are to be found in the case of pyemia or tuberculous abscess. The symptoms of deep brain abscess may be

divided into three groups, according to causes: 1. Those which are inseparable from indications of suppuration; such are those disturbances which may follow any deep-seated foreign body. 2. Symptoms of increased intra-cranial pressure and of disturbed relations. 3. Special symptoms by which the locality of the disturbance may be ascertained. So long as the gray matter is undestroyed, the collection of pus may assume large dimensions, and still no intense motor symptoms appear. Local elevation of temperature over the abscess is a symptom of importance, when present; but its absence need not negative a diagnosis, if made on other grounds. Wernicke has stated that there is a peculiar disturbance of speech which points to lesion of the temporal region. This is the confusion of correct with incorrect words. In the general diagnosis of cerebral abscess it is to be remembered that there usually is a latent period which may continue for an indefinite time. The stage of active symptoms is usually ushered in by more or less headache; slight rise in temperature. Local or motor symptoms can only be expected when the abscess is in the motor area of the brain. In operating for abscess of the brain operators until recently have satisfied themselves with incising the dura, and doing nothing more. With the introduction of aspirating methods, the hollow needle came to be used for brain exploration. The dangers of this procedure are certainly small. The danger of hemorrhage has been over-estimated. A temporary tampon will control deep hemorrhage, while in bleeding from the pia-mater the vessels may be secured with ligatures or serefines. In brain abscess consequent upon middle ear lesion, the best point to trephine, according to Bergmann, is above and behind the ear. Macewen proposes a second counter-opening on a level with the floor of the abscess.

Brain Tumors.—The principle features of these growths which produce symptoms are, location, size, character, rapidity and manner of growth and extent to which they affect surrounding brain tissue. Considered in their surgical relations we may, with Bergmann, divide them into (*a*) the circumscribed or encapsulated, and (*b*) the infiltrated or diffuse, around which, as a rule, there is a zone of softening. A third class may be mentioned, *i. e.* those growing from the interior of the cranium, from the bone or dura. If a reasonably satistactory diagnosis can be made, it must be indeed an extensive growth of the cranial vault, which shall contraindicate operation. The question of what and how many brain tumors are amenable to operation has been best answered by White. He found in one hundred brain tumors met with in the dead-room of Guy's Hospital, that only nine could have been removed—one tuburculous nodule, four sarcomas, two undetermined tumors, one cyst and one myxoma. Nine per cent. could have been attacked, providing a fairly accurate diagnosis had been made. Of these nine tumors five were located in the cerebellum one in the frontal lobe and one in the extremity of the occipital. It is doubtful whether these seven could have been recognized accurately enough during life to justify operation, while the myxoma was impossible to diagnose. It is thus seen that by no means all tumors which can be diagnosed can be deemed suitable for operation.

Dr. David Ferier, of London, said that he took especial pride and satisfaction in the fact that this subject had been assigned such an important place in this great gathering of the profession in this country. He had long cherished the idea that the determination of the functions of the brain, would in time lead to the successful treatment by surgery of some of the most distressing ailments of our fellow creatures. When he first broached the possibility of this, he received little encouragement, but now cerebral surgery had become a distinct branch of the art of surgery. There is a great future for cerebral surgery. We must, however, be cautious, lest we do things which our better judgment and larger experience may not consider altogether justifiable. While there have

been many successes, yet there had been some failures. He alluded more particularly to cases of Jacksonian epilepsy. The discharging lesion has been removed in many of these cases, without permanent cure. Care must also be taken that in curing one affliction we do not induce a greater evil. There is yet much to be learned in regard to the functions of the brain, and in regard to the diagnosis of cerebral disease,

MR. VICTOR HORSLEY, of London, described briefly the results of his experiments upon the motor region. He believed that here three functions were clearly represented; 1. The representation of the so-called tactile sense; 2. Representation of the so-called motor sense; and, 3. The great representation of movement. It is found that morphologically the large cells in the fourth layer are concerned in the representation of movement, and he could not understand why we should not allot to the small cells in the upper layer the representation of sensation. He had divided the motor region into minute areas, and studied the effect of irritation of these separate areas. He had found that the representation for any part was not limited to one minute portion of the brain, but that there was a focal point where it was strongest, and then it gradually diminished as we passed outwards. In his different experiments he had met with certain points of difference. These were attributable to the employment of different species of monkeys. He now uses only the bonnet monkey, and for all practical surgical purposes, the results are perfectly applicable to man. Experiments performed during the past summer, had enabled him to prove that the convulsions of so-called Jacksonian epilepsy were solely due to the cortex, and not at all dependent upon the spinal cord or upon the bulbar spinal system. In cerebral surgery, we practise simply the ordinary rules of surgery. In cutting out the bone, a one inch trephine should be first used to determine the thickness of the skull. The surgical engine may then be used, to cut almost through the portion of bone to be removed. The bone may then be removed with strong forceps. The dura mater should be first separated. If nothing is found, and the operation is an exploratory one, the dura mater should be opened. If we propose to use faradism for the recognition of certain areas, it is important that the ordinary antiseptic solutions should not be applied to the brain, for they tend to prevent the response to the electric current. Parenchymatous hemorrhage may be prevented by the use of morphia. The ligature must be always applied if possible; never pack the wound. In regard to the recurrence of epilepsy, in operations performed for the relief of this affection, he considered that the recurrence was due to incomplete operation. In those cases in which he had removed to his own satisfaction, not only the lesion, but the surrounding brain substance for at least one centimètre, there had been no return. He agreed with the previous speaker, that there was danger of doing too much in certain cases.

DR. M. ALLEN STARR, of New York: It is evident from the statements just made that cerebral surgery has a great future, but is dependent on neurology for its guide. The burden of responsibility for future progress rests upon physicians, for diagnosis must precede operation. The great discoveries in cerebral localization made in the past have been reached by means of the collection and analysis of large numbers of cases of localized disease in man, rather than through physiological experiment. Future advance must be in the same line; hence the importance, too much overlooked in this country, of recording carefully every case of cerebral disease; and to be properly recorded it must be carefully examined. This is especially necessary in the cases of disturbances of speech. The history of aphasia presents three epochs: First—That of Broca, in which the fact was established that lesions of the third frontal convolution on the left hemisphere produced aphasia; Secondly—That of Wernicke, in which a distinction between sensory and motor aphasia was

drawn, and the former was shown in a few cases to be due to lesion of the first temporal convolution; Thirdly—That of Charcot, in which the four mental elements of speech were carefully separated. Charcot says: "A word is a complexus. In it we can discover, in persons of education, four distinct elements: the auditory memory picture, by whose means we are able to grasp the sense of words heard; the visual memory picture, which enables us to comprehend the words written or printed; and also two motor elements—the motor memory of articulation and the motor memory of writing; the first developed by the repetition of movements of the tongue and lips necessary to pronounce a word; the second by the practise of motions of the hand and fingers necessary for writing." Each of these memories, being distinct, can be lost. The result is disturbance of speech, whose forms vary. The loss of visual memories produces verbal amnesia and word blindness; the loss of auditory memories causes word deafness; the loss of motor memories of writing results in agraphia; the loss of motor memories of pronunciation produces motor aphasia. Individuals differ largely in the degree of cultivation of each of these memories, and hence suffer differently when affected by their loss, *e. g.*, the literary man presenting far more symptoms than a common laborer when his memories of things read are lost. Another fact of importance is the independence of speech and thought. Aphasics may retain their musical faculties and may sing when they can not talk. Thinking, though largely done by the aid of speech, is not dependent upon it. We have memory pictures of the shape, form, sound, and odor of objects, independent of their names, and unless these are intact in the brain the perception of the object does not produce recognition of its nature or use, and does not awaken the memory of its name. The condition termed apraxia is found with aphasia in some cases, but not in all. Turning from clinical distinctions to pathology, the localization of the various memories necessary to speech was discussed. Motor aphasia is produced by lesion in Broca's centre, or in the tract from that centre to the cranial nerve nuclei. If it is due to lesion in the latter, it is temporary and accompanied by other local symptoms. The situation of the lesion producing motor agraphia is uncertain. Word deafness is due to lesion in the first temporal convolution, and is associated with word blindness when the lesion extends to the supra marginal convolution and angular gyrus. All the cases of pure sensory aphasia in which the lesion was limited to these parts (forty-one in number) were collected, and a chart of the brain was shown to support the localization stated. The condition of apraxia was shown to accompany lesions situated in or beneath the angular gyrus. The integrity of the connecting tracts between the various memory centres is also necessary to the act of speech. These can be tested, thus: repetition after another, copying, writing at dictation, and reading aloud are acts involving two separate areas and their connecting tract. Lesions of these tracts produce disturbances of speech, some of which Licktheirm has described. But cases have not yet been sufficiently well tested to warrant any conclusions. The necessity of careful examination of all cases, to detect various defects, was dwelt upon, and the speaker closed by indicating how readily accessible to surgical interference the speech areas of the brain are.

Dr. W. W. Keen, of Philadelphia, compared the head cavity to the other cavities of the body. The brain may be considered to be made up of a number of viscera having separate and distinct functions, and each of which has its own physical signs and symptoms. While we should be careful not to do too much, we should not err in the other direction. The timidity with which the surgeon formerly approached the abdominal cavity was remarkable; the boldness with which we now attack the lesions of this cavity is almost appalling and the success equally gratifying. This history will be repeated in the case of the brain.

Dr. Robert F. Weir, of New York, had, since 1883, operated in ten cases of brain surgery. Three times for tumor; three for abscess; twice for hemorrhage into the cerebrum, where there was no external injury to indicate its locality; once for epilepsy and once for cerebral pain. In the last case the tumor was so deep that there was nothing to indicate its presence after the brain was exposed. It was one and a half inches below the surface. The growth proved to be a sarcoma. The operation was performed last November. The patient is still living, but there are signs of a recurrence of the growth. Bergmann says that operation should not be performed when the patient is in coma or where the tumor is large. Dr. Keen has removed a tumor weighing over four ounces, with recovery, and Mr. Horsley has removed with success a tumor weighing four and a half ounces from a patient in a state of coma. Sometimes, although no tumor is found, the operation causes disappearance of the symptoms by relieving the pressure; this might be applicable in apoplectic hemorrhage where the clot could not be removed. I have gone over the brain to find what parts are accessible to surgical interference. We are able to strip up the longitudinal and lateral sinuses to a considerable extent. The dura-mater may be separated for a considerable distance from the bone. He had been able to raise up the frontal lobes so as to see the anterior clinoid processess and he had been able to feel the foramen magnum.

Third Day—Thursday, September 20th—Evening Session.

President's Address.—The President selected as the subject of his address "Medical Museums, with Special Reference to the Army Medical Museum at Washington." The museum, which in point of mere number of specimens was one of the eight largest in the world, owed its inception to Dr. Wm. A. Hammond, who, when Surgeon-General in 1862, issued a circular directing the army medical officers to collect and forward everything that might be regarded as valuable in that connection. At first the museum was limited to military medical subjects, but its scope had now been greatly broadened. It should include hygiene and materia medica in a general sense. A series of specimens showing the normal anatomy of the domestic animals used in experimental investigation as well as specimens in embryology from the lower animals were needed. The specimens formerly valued for illustrating anatomy were dried and varnished dissections; these are now regarded as almost useless. Dissections under alcohol mounted in opaque dishes with glass covers, and sections of frozen bodies were now the rule. Of these the museum had some excellent specimens. Regarding the pathological section, he alluded to the varying aspect which it presented to different observers, "no doubt much of the ancient pathology and much of that which was quite recent is comparable to looking in the dark for a black spot which is not there." However, medical men who despised pathology and devoted their entire attention to symptoms and treatment, erred as much as those who went to the other extreme. To secure pathological specimens in their most instructive form it would be necessary to have a considerable variation from the routine methods of *post-mortem* examinations. Everything should be conducted with a view to the ultimate destination of the specimen, and there was need of a special treatise on this subject. He urged upon medical men engaged in private practice the advisability of obtaining and forwarding to the curator, pathological specimens presenting interesting features; and upon those engaged in this subject in connection with schools, to forward such specimens as they already had in duplicate. In this way the museum would grow rapidly and the great value of these specimens as "object lessons" would be more fully realized. The same course should be adopted in connection with instruments and surgical appliances and there would soon be a representative collection if every

inventor forwarded a sample of the result of his ingenuity. He mentioned the great value attaching to some of the special collections, especially that in connection with the late war. These could never be duplicated, and they illustrated results obtained when antiseptic surgery was unknown. The annual appropriation for the museum was $5,000; it was sufficient, but it should not be cut down. More funds were needed for providing catalogues with descriptions of the specimens, without which the amount of information to be derived by a visitor was merely that which he could see in them.

SPECIAL CORRESPONDENCE.

NEW YORK.

[FROM OUR OWN CORRESPONDENT.]

Rupture of the Diaphragm.—Protrusion of the Stomach and Spleen into the Thoracic Cavity, with Compression of the Lung.—A Training School for Male Nurses.—Bellevue Hospital Chapel and Library.—Anecdote of Dr. Agnew.

A remarkable case of rupture of the diaphragm was related by Dr. N. W. Leighton at the recent summer meeting of the Fifth District Branch of the New York State Medical Association. The Fifth District includes the cities of New York and Brooklyn, and is composed of the counties on Long Island and Staten Island and along both banks of the Hudson as far north as Ulster and Dutchess, inclusive. The annual meeting of the Branch is held in Brooklyn in the month of May, and in addition there is always at least one special meeting during the year, which is usually held in the latter part of the summer. These special meetings are held in various parts of the District, and the opportunity is thus afforded the members for many pleasant excursions to gatherings of the profession, where scientific proceedings are combined with enjoyable social reünions. On this occasion the place selected for the meeting was Babylon, Long Island, which is one of the great headquarters for all New Yorkers interested in aquatic sports.

In Dr. Leighton's case the patient was a married lady, 28 years of age. He was called to see her in haste on a Sunday, and found her suffering with severe pain in the epigastrium, nausea and dyspnea, while the expression on her countenance indicated anxiety and fear. He learned that she was in her usual health in the morning, had been to church, and afterwards taken her dinner, a part of which consisted of fried scollops. Concluding that she was suffering from colic in consequence of embarrassed digestion, he directed that some powdered ipecacuanha should be given her in a glass of warm water; but found that she was unable to swallow this. He tried other simple remedies, necessarily with the same result, and then, believing that the dyspnea was due to gaseous distension of the stomach and the dysphagia and other nervous manifestations to hysteria, he left the house for a short time; previously urging the patient's friends to persist in having her try to swallow some of the ipecac. mixture. Returning in less than half an hour, he found to his surprise that the patient was dead.

At the autopsy, which was made twenty-one hours after death, Dr. Leighton found an opening in the diaphragm, on the left side, through which the stomach and the spleen had entered the left thoracic cavity. The stomach was distended, filling the entire cavity with the exception of the space occupied by the spleen below and left lung above, where the

latter was compressed into a mass about the size of a large orange. The stomach contained the partially digested meal taken a few hours before death, and the walls of the organ were tense from the pressure of the gas contained within them. The heart was pushed to the right of the median line. The opening through the diaphragm was sufficiently large to admit four fingers, side by side; while the edges of the ruptured muscles were thickened and rounded as if cicatrization had taken place a long time before the fatal ending of the case.

It was learned from her husband that the patient had had a very severe labor about seven years before, and that during the last expulsive pains she had complained that she "felt something give way inside her." Since then she had had numerous attacks of colic and of indigestion with nausea; but she was never able to vomit. She was never again pregnant. It was the conclusion of the physicians present at the autopsy that the rupture occurred during parturition seven years before, and that the accident had run until now without giving rise to any great inconvenience, except the inability to evacuate the stomach when nausea and embarrassed digestion required it. During the fatal attack it seemed probable that the stomach, by its muscular movements or by its distension with gas, was forced through the ruptured diaphragm, and continued to expand until it forced the latter downward, dragged the spleen into the thoracic cavity, pushed the heart to the right of the median line and expelled all the air from the left lung. To what extent the displacement of the organs had taken place at death Dr. Leighton stated that it was impossible to say; but there was no doubt in his mind about the entrance of the stomach into the thorax after the patient's last meal and before her death.

There has recently been opened in connection with Bellevue Hospital, a training school for male nurses, which, it is believed, is the first of its kind in the world. For this valuable institution the city is indebted to the liberality of D. O. Mills, Esq., and on the occasion of the formal transfer of the new building to the municipal authorities the principal address was delivered by the Hon. Chauncey M. Depew. The structure stands on the Hospital grounds and cost Mr. Mills about $100,000. It is five stories in height, and in addition to fifty sleeping apartments, the administration rooms, dining-room, kitchen, etc., it will contain the Hospital museum. In his letter to Mayor Hewitt, conveying the institution to the city, Mr. Mills wrote: "The Training School for Female Nurses was a great gain. Personal observation of the good it has done led me to think that an equal service might be rendered by an institution for the training of male nurses. The humane work of the physicians in charge of Bellevue and other city hospitals, could thus be efficiently supplemented, and the sufferings of the poor under their care alleviated, while the community would gladly employ all the male nurses the hospital could spare, and so enable the students thus trained to make the vocation of nursing their life-work."

Another needed addition to Bellevue Hospital is a handsome chapel and library, which is now in course of erection and which is the gift of Mrs. R. H. L. Townsend, the lady who last year presented to the institution a pavilion devoted exclusively to operative procedures on female patients.

In the course of his eulogy on the lamented Agnew, delivered before the Academy of Medicine early in the summer, and which has now been issued by the Academy in pamphlet form, Dr. T. Gaillard Thomas relates the following characteristic anecdote: "A missionary calling to see me concerning his wife, by the advice of Dr. Agnew, to whom he had come for council about his eyes, from distant lands, told me this story. He had seen the famous oculist five times during a period of as many weeks, and having her cured of the ailment which had caused him to leave his distant charge, had that very day, in much fear and trembling, asked for his bill. The doctor appeared to be pressed for time, and less commun-

icative than usual. He sat down, rapidly wrote a note, put it in a sealed envelope, and handed it to him with the words: 'Here is your bill, do not open the envelope until you get home, when you may examine it at your leisure. Good day, sir.' As may be supposed, the poor old divine, trembling for the fate of his meagre purse, no sooner got outside the doctor's door than he opened the envelope, to learn as quickly as possible the worst His surprise was great when he found enclosed a check for $25, drawn to his order; an amount equal to an ordinary charge for the five visits rendered to him."

NEW YORK, September 15, 1888.

PUBLIC HEALTH.

By W. R. CLUNESS, M. A., M. D., Sacramento, Cal.

Mortality.—The deaths registered in 63 town districts of the State during the past month, in a population of 731,100, correspond to an annual rate of 15.0 a thousand, the total mortality having been 914. 152 deaths were due to zymotic diseases, giving an annual death rate of 2.51 a thousand. Of these 42 were due to diphtheria, 30 to cholera infantum, 27 to typhoid fever, 18 to remittent fever, 13 to diarrhea and dysentery, 6 each to cerebro-spinal and typho-malarial fever, 4 each to whooping cough and erysipelas and 2 to scarlet fever. 206 deaths were attributed to diseases of the respiratory organs, giving an annual rate of 3.38. Of these 140 were due to consumption, 43 to pneumonia, 14 to acute bronchitis and 9 to congestion of the lungs. 62 deaths resulted from heart disease. The average annual death rate from all causes, occurring in the ten largest cities and towns in the State, and representing a population of 573,000, was 14.95, a fraction less than the average mortality throughout the State. The highest death rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco, having been 19.11; the lowest from Stockton, the rate having been but 7.20. Santa Ana reports the remarkably low mortality of 4.80, but as "the vicinity" is included we are unable to determine the number residing in the city proper.

Yellow Fever.—Since the last issue of THE MEDICAL TIMES, yellow fever, which had obtained a strong foothold in Florida, has appeared in Alabama, Louisiana and Mississippi, and serious apprehensions are entertained lest it might reach other adjoining States, or be conveyed to remoter ones possessing a climate suitable for its development. The most strenuous efforts are being inaugurated to prevent the entrance of all persons from infected districts into those that are unaffected, even a "shotgun quarantine" having been established in certain localities. When, however, we consider the wide area over which the disease has already extended, the many similar localities not far distant, the number of persons attacked, the alarm (almost amounting to a panic) of the hosts of people occupying the localities affected and their determination to flee from the pestilence, together with the subtle nature of the particulate producing it, we have but little hope of its being checked by human efforts, and believe the frosts of the approaching autumn will alone limit its spread. Ever since the first appearance of the yellow fever the most perplexing problem to the medical men has been the *cause* thereof, the *potential something* which, when it obtains lodgment in the soil suitable for its propagation, is capable of inducing the disease in question. Whether or not it be contagious, appears also to be still *sub judice*, yet that such a soil as favors the development of the germ, and such a con-

dition of atmosphere as renders certain individuals susceptible to the inception thereof into their systems, culminating in what is known as yellow fever, exists at times in certain highly malarial districts, is indisputable. And that this specific germ or miasm can be generated *de novo* in ship-holds and upon shore, in damp, marshy and unhealthy districts, appears to be tolerably well established. (See lecture on the epidemialogical aspects of yellow fever by Robert Lawson, L. R. C. S. Ed. *vide* TIMES, vol. ii, p. 197). It is maintained by many authorities that yellow fever is nothing more than a pernicious form of the ordinary malarial fever, modified only by the intensity of the exciting cause and surrounding influences, and appearing only during the prevalence of certain atmospheric conditions which tend to engender a state of the system favorable for its reception. It is observed by them that it very generally appears simultaneously with malarial fever, and in localities in which that form of disease prevails; and that the first cases always appear in those localities in which the malarial influence is sure to prevail in its severest form annually. While, however, such localities usually possess such influences as are capable of engendering malarial fever only, there can be but little, if any, doubt that the introduction thereto of the specific germ, engendered as stated, is necessary for the development of what is known as yellow fever. It has also been demonstrated, over and over again, that the mere introduction of the germs of yellow fever by means of individuals ill of that disease is not sufficient to cause its spread in a healthy locality; it must be unhealthy and the climate and surroundings of such a nature as to tend to the propagation of malarial influences. To residents of the Pacific Coast it therefore becomes of the utmost importance to know whether or not such a condition prevails as would favor the spread of the disease in question provided its specific germ were introduced. To this question we unhesitatingly give an affirmative assent, after a careful comparison of our climate during the summer and early autumn months with that of those sections already affected in Florida, Alabama and Mississippi. And there can be but little doubt that the residents of Sacramento and vicinity are especially ripe for the introduction of the germ, for there is such a combination of heat, moisture, and decomposing vegetation at present, not only in this immediate vicinity, but throughout the greater portion of all of the great valleys of our State, as favors the development of malarial forms of disease in a very aggravated form. Add to this the spark, the specific germ which has multiplied so rapidly and with such deadly effect in Jackson, Florida, and other neighboring localities possessing a climate, and whose prevailing diseases are similar to ours, and the probabilities are that we will have a visitation of yellow fever.

METEOROLOGY.

By J. W. ROBERTSON, B. A., M. D., Assistant Physician to the State Asylum for Insane, Napa, Cal.

Temperature.—During the month of August the heat was intense through the whole extent of the valley belt. The highest temperature noted was at Fresno, though in several other localities the thermometer registered over 100°. Along the coast and the modified coast the temperature was more moderate, the mean ranging from 68° at San Diego to 56° at Eureka. Along the coast a marked freedom from fog has been reported.

Rainfall.—A trace was reported from several stations in Central California. Further south the precipitation was measurable, as indicated in the appended table.

California—Tabular Statement for August, 1888.

STATIONS.	Temperature. Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	Rainfall. No. of Days Rain Fell	Total Rainfall	Mean Relative Humidity	Weather. No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Wind. Prevailing Direction.	Furnished by
Auburn.....Cal.	79.5	105.0	54.0	.....	.....	.....	.....	0.00	.....	.....	.....	.....	S.	Southern Pacific Co.
Colfax..... "	76.8	100.0	58.0	.....	.....	.....	.....	0.00	.....	.....	.....	.....	N.	" " "
Eureka..... "	56.0	68.4	48.6	61.5	53.2	8.3	0	0.00	91.3	9	8	14	N.	Signal Service U.S.A.
Fresno..... "	82.9	111.1	56.1	101.5	64.6	36.9	1	trace	40.8	30	0	1	NW.	" " "
Keeler..... "	80.5	99.8	60.0	93.7	67.7	26.0	2	0.10	26.1	27	2	0	S.	" " "
Los Angeles.... "	67.6	97.0	51.3	86.8	59.2	27.6	1	0.10	.....	23	8	0	W.	" " "
Monterey ..... "	63.1	75.0	56.0	.....	.....	.....	.....	0.00	.....	.....	.....	.....	SE.	Southern Pacific Co.
Napa..... "	65.9	90.0	51.0	77.2	54.5	22.7	0	0.00	.....	24	7	0	.....	Sta. Napa Ins. Asylum
Oakland..... "	61.59	86.0	52.0	.....	.....	13.67	0	0.00	85.55	21	7	3	SW.	J. B. Trembley, M.D.
Paso Robles.... "	74.4	108.0	52.0	.....	.....	.....	.....	0.00	.....	.....	.....	.....	S.	Southern Pacific Co.
Red Bluff..... "	83.7	107.5	55.0	98.0	66.9	31.1	0	0.00	31.2	27	3	1	S.	Signal Service U.S.A.
Sacramento. ... "	75.4	107.5	51.0	94.5	59.2	35.3	1	trace	55.0	30	1	0	S.	" " "
San Diego..... "	68.4	82.0	57.0	74.6	63.7	10.9	1	trace	84.3	20	8	3	NW.	" " "
San Francisco.. "	57.8	85.1	50.8	68.4	53.1	15.3	0	0.01	83.2	13	16	2	SW.	" " "
Santa Barbara.. "	66.3	84.5	52.0	74.6	57.9	16.7	1	trace	77 8	28	2	1	W.	Hugh D. Vail.
Santa Cruz .... "	64.4	88.0	55.0	.....	.....	.....	.....	0.00	.....	.....	.....	.....	S.	Southern Pacific Co.
Yuma.....A. T.	90.4	110.3	70.0	106.6	75.4	31.2	1	trace	43.4	27	2	2	S.	Signal Service U.S.A.

Blank (.....) indicates data missing.

Clear Day—One on which cloudiness is 3 or less on a scale of 10. Fair Day—One on which cloudiness is from 3 to 7.
Cloudy Day—One on which cloudiness is over 7.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At the regular meeting of the Board of Examiners, held Sept. 5, 1888, the following physicians were granted certificates to practise medicine and surgery in this State:

Robert Thomas Allan, San Francisco; Univ. of Edinburg, Scotland, Aug. 1, '85.
Wm. Cornelius Bice, San Diego; M. Dep. Univ. of Louisville, Ky., Feb. 28, '59.
William Bull, San Francisco; Royal Coll. of Surgs. Edinburg, Scotland, Jan. 28, '76.
John R. Colburn, Los Angeles; St. Louis M. Coll., Mo., Mar. 8, '78.
Charles Sanford Dickson, San Diego; Chicago M. Coll., Ill., Mar. 20, '77.
Chas. Henry Douglas, San Diego; Bellevue Hos. M. Coll., N. Y., Mar. 1, '76.
Oscar D. Fitzgerald, Los Angeles; St. Louis M. Coll., Mo., Mar. 10, '72.
Henry D. Garvin, San Diego; M. Dep. Univ. of Buffalo, N. Y., Feb. '47.
Nathan Hunt, San Diego; M. Dep. State Univ. of Iowa at Iowa City, Mar. 6, '72.
Walter Palmer Miller, San Francisco; M. Dep. Univ. of Vermont, June 25, '83.
Benj. Baker Nesbit, Pomona; M. Dep. Univ. of Louisville, Ky., Jan. 31, '62.
Henry Howard Sherk, Pasadena; Jefferson M. Coll., Penn., April 5, '87.
Hamilton Stillson, Red Bluff; M. Dep. Univ. of Louisville, Ky., Mar. 1, '82.
Samuel G. Wilson, Los Angeles; Jefferson M. Coll., Penn., Mar. 12, '73.
Henry Bernhardt Weiper, Anaheim; Rush M. Coll., Ill., Feb. 19, '84.

The application of Edward Davison, of Woodland, filed July 10th, was rejected because of insufficient credentials. It was based upon a license from the Missouri Board of Health which credited him with having received a diploma from the Chicago Medical College, March 4th, 1860; but letters from that College say the records do not show that Edward Davison, or J. E. Davison, under which name he says he graduated, ever attended or graduated there. A report was received from the Secretary of the Homeopathic Board announcing the rejection by that Board of the application of A. Ballou, of Los Angeles, because of insufficient credentials. Ten incomplete applications were laid over that they might be completed by the next meeting. Unprofessional advertisements of Godfrey Beaumont, of San Diego, were received, and the Secretary was instructed to request him to withdraw the same, calling his attention to the requirements of the law, the rules of this Board, and the decision of the Supreme Court of this State in the case of Lowry *vs.* the Board of Examiners. The Secretary reported that besides the 1200 letters sent out on the first of August for information to be used in compiling the fourth edition of the *Medical Register*, 650 additional ones had been sent to tardy correspondents on the first of September, to all of which only about 750 answers have been received. Communications asking for information and blanks for prosecutions of illegal practitioners were received from San Diego, Los Angeles, Monterey, Sacramento, Yuba and Inyo counties. While the law stands upon our statute books it should be enforced. The profession looks to the Board of Examiners, as the central organization, for its enforcement; but it should be remembered that the legislature made no appropriation to defray expenses of this

Board, however incurred, hence effective work can be done only through the earnest coöperation of the medical profession throughout the State, with the assistance of the legal profession. We look especially to those in the latter profession whose oath of office impels them to support the laws of the State.

R. H. PLUMMER, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from Aug. 16th to Sept. 17th, 1888.

Lt. Col. Basil Norris, Medical Director, will proceed to Fort Klamath, inspect the medical department at that post, and upon completion thereof return to these headquarters. S. O. 103, Dept. of the Columbia, Sept. 3, 1888.

Capt. J. D. Hall, Assistant Surgeon, ordered from Fort Townsend, W. T., to Fort Niagara, N. Y. S. O. 206, A. G. O., Sept 5, 1888.

Assistant Surgeon M. M. Walker, relieved from temporary duty at Benicia Barracks, to return to his station, the Presidio of San Francisco. S. O. 60, Dept. of California, Sept. 7, 1888.

Capt. John M. Banister, Assistant Surgeon, granted two months leave of absence, with permission to apply for an extension of one month, to take effect when his services can be spared- S. O. 211, A. G. O., Sept. 10, 1888.

Lieut. Col. Richard H. Alexander, Surgeon, detailed a member of Board to meet at San Carlos, A. T., August 28th, to select a site for a new post at that place. S. O. 44, Div. Pacific, Aug, 15, 1888.

Assistant Surgeon Leonard Y. Loring, granted leave of absence for one month. S. O. 97, Dept. of Arizona, Aug. 23, 1888.

Capt. Marcus E. Taylor, Assistant Surgeon, granted leave of absence for four months, to take effect about Oct. 15, 1888. S. O. 196, A. G. O., Aug. 24, 1888.

Assistant Surgeon Eugene L. Swift, upon being relieved from temporary duty at Fort Klamath, Oregon, to return to his proper station—Fort Spokane, W. T. S. O. 196, A. G. O., Aug. 24, 1888.

Official List of Changes in the Medical Corps. U S. Navy (Pacific Station), from Aug, 20th to Sept. 20th, 1888.

Passed Assistant Surgeon F. J. B. Cordeiro, reported for duty on board U. S. S. "Mohican," Sept. 6, 1888, at Mare Island, Cal.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (Division of the Pacific) for the four weeks ended Sept. 20, 1888.

Surgeon H. W. Sawtelle directed to proceed to San Diego, Cal., and inspect service at that station. Detailed as Recorder of Board to select site for Quarantine Station at San Francisco.

Passed Assistant Surgeon Bratton, relieved from duty as Medical Officor on U. S. Revenue Steamer "Bear," ordered to report for duty at U. S. Marine Hospital, San Francisco.

Passed Assistant Surgeon P. C. Kalloch, leave of absence for one week.

Sacramento Medical Times.

VOL. II. NOVEMBER, 1888. NO. 11.

A CLINICAL LECTURE,

Delivered at the Hospital of the University of Pennsylvania,

By WM. GOODELL, M. D.
Professor of Clinical Gynecology.

Gentlemen: The first case which I bring before you, is that of a married woman, aged 30 years. She comes to us on account of sterility and dysmenorrhea. Menstruation has been painful ever since puberty and the pain is so severe as to incapacitate her for work. Her suffering has greatly increased since marriage. Why should she have pain at all and why should it be getting worse? If an unmarried woman, or a woman who is married but sterile, comes to you with the history of a painful menstruation, what should pass through your mind? The first thing that you would think of would be that the dysmenorrhea was due to anteflexion of the womb—that is, to a stenosis caused by the womb bending too sharply towards the front. As you know, the natural position of the womb is one of anteflexion, but in these cases the anteflexion is exaggerated. It must, however, be borne in mind that in a few exceptional cases, stenosis is due to retroflexion. Dysmenorrhea due to anteflexion usually increases after marriage, provided pregnancy does not take place. Nature intended that when a woman married she should become pregnant and if a married woman does not have children she nearly always suffers.

Dysmenorrhea due to stenosis has certain characteristics. After it commences, it gradually increases in intensity until it reaches its acme, when there is a sudden gush of blood from the uterus and the pain suddenly diminishes. It then begins again, and again culminates in a gush of blood, followed by relief. The trouble is due to the bent condition of the uterus. The menstrual fluid tries to overcome the bend, but it cannot do so until it has straightened the womb. The distension gradually continues until it is great enough to straighten the cervix, when there is a sudden escape of blood, with relief of the pain. We see exactly the same thing when a rubber tube is bent—the water flows readily through the tube until the bent portion is reached. It is then arrested until the force behind becomes sufficient to straighten the bent portion and thus remove the obstruction. The pain in these cases is due not only to the distension of the womb, but to the efforts of the organ to force the blood from its cavity. When the condition has continued long this leads to a thickening of the endometrium and this in turn increases the difficulty. In addition to this, in the case of a sterile married woman, we have the effect of the congestion from sexual intercourse. This increases the

hypertrophy of the uterine lining membrane and consequently reduces the calibre of the cervical canal. There is not only thickening of the uterine mucous membrane, but also hypertrophy of the muscular structure of the organ. The congestions may also affect the ovaries and lead to structural changes in them. On making a vaginal examination, I find that there is a virginal cervix. It is not thicker than my little finger and the os is very small. The sound, introduced with a little difficulty, gives a measurement of three and one-fourth inches. There is marked anteflexion. For the treatment of this affection a cutting operation is usually recommended by the text-books. This is, however, a dangerous operation and is by no means so successful as the one that I shall employ to-day, namely, forcible dilatation. I have performed this operation in a large number of cases and have never had a fatal result, and in but one or two has there been any pelvic inflammation, and this was slight. Not only does the operation relieve the dysmenorrhea, but in a number of cases, pregnancy has followed. If the dilatation is thoroughly performed under ether, it is, as a rule, not necessary to repeat it.

I shall now commence the operation by thoroughly cleansing the vagina with a 1:2,000 solution of corrosive sublimate. I then attempt to introduce an Ellinger's dilator, but it will not pass the bend. I insert it as far as it will go, then dilate a little. I next close the blades, push them in a little further and again dilate, and thus I continue until the instrument enters the uterus. In some cases where the os is very small and will not admit the extremity of the dilator, I first enlarge it by using blunt pointed scissors, with the blades closed, with a boring motion. Having passed the obstruction, I gradually expand the blades of the dilator. The Ellinger dilator has the advantage that the blades are separated parallel to each other, but they have a tendency to feather. I now remove this instrument and introduce my dilator, which is much more powerful. It is provided, as you see, with shoulders which prevent it from slipping into the womb far enough to injure the uterine tissue as the blades are expanded. The blades are separated very slowly so as to avoid injury to the cervix. I have produced slight laceration in a few cases while dilating. Occasionally, I meet with a very small cervix, one which is really infantile. In such cases I do not expand the instrument to its fullest capacity. In the majority of instances, however, the instrument is dilated to the full extent. This gives an os through which the finger may be passed. In many cases where it is desired to examine the interior of the uterus, it is better to dilate the cervix this way than by the use of sponge tents. This operation is not so dangerous as is the use of tents, but on the other hand, the amount of dilatation obtained is not so great.

I have now dilated the cervix to the full capacity of the instrument. The ether is now removed and the dilator is allowed to remain until the woman begins to show that she feels the pain. It is then removed. Before beginning this operation, I insert a suppository containing one grain of the aqueous extract of opium. The pain is at first severe, but is soon subsides. Two suppositories are usually all that are required, one being given before the operation and the other two hours after it, if required. If the pain continues the opiate must be repeated. A poultice

is placed over the abdomen if there is much soreness. The patient is kept in bed for forty-eight hours, and for the first day I order a light diet. After this the patient returns to her ordinary food. If, however, the soreness continue, the patient is kept in bed until it disappears. I now remove the dilator and syringe the vagina thoroughly with the corrosive sublimate solution, and some of it is allowed to enter the uterus. As I have already stated this is a very successful operation, and it is one which I can confidently recommend to you.

Laceration of the Cervix Uteri—Operation.

The next patient is one who comes to us to be operated on for the relief of a stellate laceration of the cervix. By a stellate laceration we mean one in which there has not been one tear, but several. The history is that since the birth of her first child, six years ago, she has complained of uterine troubles. She has had in all three children and the last labor was the hardest. She has for some time been under local and general treatment and the troubles, except those due to the laceration, have been removed to a large extent. For a time she wore a ring pessary with benefit. As you have heard, the first labor occurred six years ago. The laceration in all probability occurred at that time. When the cervix is torn in this way, it turns back on itself like a piece of celery when it is split. The delicate mucous lining of the cervix is thus exposed to friction. With every motion of the body and during sexual intercourse the delicate epithelium is rubbed off, and thus the irritation is kept up. Why was benefit derived from the use of a pessary? As you know, when there is laceration of the cervix the womb does not undergo involution properly, and consequently is heavier than normal. The ring pessary, by dilating the vagina, kept the womb up and relieved the tension on the ligaments. It also, by dilating the vagina, aided in diminishing friction. Let me say a word with reference to the treatment of laceration of the cervix immediately after its occurrence. The trouble then is to recognize its presence. Immediately after labor the cervix is so soft and relaxed that it is often impossible even for a skilled finger to determine whether there be laceration. Even when it is found, I doubt the propriety of inserting sutures at this time. I do not think it is proper to do so unless there be considerable hemorrhage. If there were much bleeding, I should insert sutures to check it, but under other circumstances I should prefer to trust to nature with the use of cleanliness and antiseptics. I believe that in the majority of cases these lacerations will heal spontaneously if the parts are kept clean. Injections of a 1:2,000 solution of corrosive sublimate may be made once or twice daily. It is asking too much of nature to expect her to heal a laceration which is all the time bathed with offensive lochia.

The patient has now been thoroughly etherized and I bring her before you. Inserting the speculum, I show you what is often mistaken for an ulceration and in one sense it is an ulceration. This is a stellate ulceration. There are four different lines of laceration, thus rendering the operation somewhat difficult. It used to be the custom of physicians to try to cure this supposed laceration by the application of the solid stick of nitrate of

silver. This causes cicatricial tissue which contracting, involved and pressed upon the delicate nerve filaments of the cervix, so that the patient instead of being improved was made worse. The only thing to be done is to restore the exposed mucous membrane to its proper position. I now insert the duck-bill speculum, and catching the cervix with a tenaculum determine the position of the future os. It makes the operation much easier if the womb is movable, as it is in this case. The first thing that I do is to pass a long thread through both lips of the cervix at the position of the new canal, and catching the portion that extends across the space between the lips with a tenaculum, draw it out. I thus have complete control of the parts. I then throw two of the tears into one by the removal of a wedge shaped piece. I next proceed to denude the lips, removing all the cicatricial tissue, taking care to remove the wedge-shaped piece of cicatricial tissue which is found in the angle of the wound.

While I am doing this, let me say a few words in reference to this accident. Laceration of the cervix is exceedingly common. There are, I think, two reasons why this occurs so often. The first reason is the tendency to rupture the membranes too early, thus removing the soft wedge so useful in the dilatation of the os. After labor has progressed to a certain point, it is no doubt advisable to rupture the membranes, but the tendency with the busy practitioner is to rupture them too soon. The second reason is the too frequent employment of the forceps. They are used entirely too often by men who should not do so. I venture to say that the forceps are used in more cases for the sake of the physician than for the sake of the woman. In almost all cases of complete rupture of the perineum, I find that the trouble has been caused by use of the forceps, and in nearly all instances of laceration of the cervix I find that the forceps have been used. The man who invented the forceps deserves the gratitude of the community, but at the same time there is such a thing as an abuse of a good instrument. I do not want to intimidate you in regard to the forceps. Put them on whenever you think that their use is required. I would, however, advise you to remove the forceps when the head reaches the perineum and allow the labor to be completed by nature.

While talking I have thoroughly denuded these surfaces with the exception of a strip of membrane on each lip to serve as the cervical canal. I used to be careful to allow an os of sufficient size, but now I do not pay so much attention to this point, for I know that if it be too small it can be readily enlarged. I next pass to the sutures of silver wire. The size of the wire is as small as is compatible with strength, for a small wire does not ulcerate its way through the tissue so rapidly as does a larger wire. The ends of each of the sutures are loosely twisted together and a shot slipped over them. After all the sutures are inserted I proceed to tighten them. As the shot is slipped down, a stream of the antiseptic solution is forced strongly into the wound in order to remove any clots that may be present. The shot is then at once slipped down and clamped. This procedure is repeated with each suture. The wires are then all cut off close to the shot, with the exception of those connected with the

upper suture on each side. These are left long as they enable us to draw the uterus down and facilitate the removal of the sutures. A shot is clamped over the ends of the wires so that they shall not irritate the vagina.

The operation being completed, fine iodoform is dusted over the cervix and a tampon of iodoform gauze loosely placed in the vagina. The after treatment will consist in keeping the patient in bed for two weeks. The bowels will be kept confined for three days and we shall have the water drawn for forty-eight hours. At the end of this time the woman may empty the bladder herself by getting on the hands and knees. The tampon is removed on the third day and antiseptic solutions used twice a day. The stitches are removed on the tenth day.

PRONUNCIATION OF MEDICAL TERMS.

By H. Stillson, A. M., M. D., Ph. D., Red Bluff, Cal.

When the writer was enjoying the delights of "general practice" in a rural district of Indiana, he was summoned one day, post haste, by a young fellow to see his wife, whom, he said, had just been delivered of a child, "but could not get rid of the alphabet." It was Mrs. Partington, was it not, who said she was greatly concerned about Ike: she was afraid he was suffering from an attack of the "serious-old-final-come-and-get-us!" It was Mrs. Malaprop, doubtless, who said of her daughter that she couldn't sing any more. "No; her epipotamus was so tumified that it interfered with the boa-constrictor muscles, and prevented deglutination."

We augurs laugh at the *hoi polloi*, but, like the augurs of old, we could laugh at one another if we should listen attentively; for scarcely can two of us engage in conversation ten minutes without making innumerable and egregious blunders in the pronunciation of our medical terms. The writer heard the term "gelsemium sempervirens" pronounced five different ways at one session of a district medical convention. It was the same convention at which a young medical graduate immortalized himself by saying of his microscope that it was "uni|ocular."

A very exact medical author remarks: "Hence, among those [medical practitioners] deserving the confidence of the people we sometimes meet physicians whose mode of using, and particularly of pronouncing, terms in common use by writers is quite unpleasant to the classical scholar; and educated persons are led to suppose such physicians as little acquainted with medical science and medical literature as they appear to be with the derivation, the

meaning, and the pronunciation of the technicalities with which our literature perhaps unnecessarily abounds." Which reminds me of a case (an actual fact) in point: "Madam," said an old and highly respected medical practitioner to a lady patient who, while consulting him, had just removed an infant from the breast; "Madam, your squalor (squaller) indicates that you have had malarial cocci (cock-eye) in your system." The good madam looked up with one of those countenances which a thunderbolt sometimes gives a patient; but her husband, who had received a classical education, and could recognize Latin and Greek even though they were clothed in *sheepskin*, only smiled one of those pitying smiles to whose charity a thunderbolt is preferable.

You say you do not make such mistakes? Well, let us see. Here is a list of twenty of the commonest terms in medical literature. I will give any medical practitioner in the United States twenty dollars if he will pronounce them all correctly. Copy the list, indicate the accent and the pronunciation of vowels and consonants, and return the list to me accompanying it with a certificate that you have not "posted up" before pronouncing, and, if it is correct according to any standard authority, your fee will be at once forthcoming:

posterior	adipose	vaginal
humerus	eustachian	theine
pes ancerinus	conduit	iodoform
gaseous	olefiant	resorcin
two-legged	exhaust	guiacum
conjunctiva	masseter	squamous

ramus ischii scalenus anticus

"English as she is spoke" is very different from "English as she is wrote"; and of all "spoke English," medical English is the most confusing. Let me give you the standard pronunciation of the following five common little words ending in ine, and ask how many of us always pronounce them correctly?

benzine—bĕn′-zēn iodine—ī′-o-dĭn vaseline—văs′-e-līn
morphine—môr′-phīn quinine—quĭn′-īn

Not one of us always pronounces all of them correctly, I warrant. Which makes me remark that many medical terms have changed and are changing their etymology. To be accurate in their use, therefore, we must not depend upon an old pronunciation. While usage must be our guide, we must not think ourselves at liberty to endeavor to establish usage. The tendency is to

Anglicize all foreign terms. Euphony exercises very little influence in establishing the pronunciation of a term, since what would seem euphonious to one person would seem dissonant to another.

We can not be guided by the pronunciation of any single scientist. One of the best demonstrators of anatomy in the United States is notorious for his use of the following incorrect pronunciations:

alveo'lus	ănus	phrēnic
alveo'lar	modĭō'lus	pĭsiform
cun(e)i'form	P(e)ȳer's patches	grācilis
forăm'en ovăle		

All incorrect. What then shall guide us? I reply: 1st. The best usage of the best scholars, as indicated in the best dictionaries. 2d. The rules of philology. The following are the names of the best dictionaries, with reference to reliability in pronunciation. They are named in order of their importance: Murray's New English Dictionary, Ogilvie, Webster, Worcester, Cleveland. But, although Murray is considered most reliable, if he should give a pronunciation differing from that agreed upon by three other dictionaries, the latter pronunciation should be adopted. Or, if each of three dictionaries gives two pronunciations for a term, that pronunciation which is preferred by two must be adopted. Until last year, Worcester's was considered superior to Webster's for accurate pronunciation. The International Congress of Philologists, which convened at New York, however, expressed its preference for Webster.

But back of dictionaries lie philological rules which often enable dictionaries to correct prevalent solecisms. And I think we may say that if we desire ever to arrive at anything like uniformity we must fix ourselves upon these rules. For, although from the very nature of affairs rules must have numerous exceptions, yet if we use them these exceptions in time will "grow less." Read Webster's note upon this point.

First, then, let us consider rules for accent: 1. Nouns of two syllables have the accent on the first syllable; hence, it is as'phalt, not asphalt'; a'zote, not azote'; caou'tchouc, not caoutchouc'; lit'harge, not litharge'; gam'boge, not gamboge'. 2. Words of more than two syllables: (*a*) When the penult is long, have the accent on the penult; hence, platin'ic, not plat'inic; propē'nyl, not prŏp'enĭl; anti'cus, not an'ticus; urăn'ic, not ū'ranic; tellu'rous, not tel'lurous. (*b*) When the penult is short, the accent is thrown upon the antipenult [the rule for quantity of vowels can not be

given here]; hence, im′potent, not impo′tent; mer′curous, not mercu′rous; pen′tўlīne, not pentȳ′line; phos′phorous, not phospho′rous; glȳ′collate, not glўcol′late. 3. There will be as many syllables in Latin and Greek words as there are vowels in the words; hence, py-ri-tes, sys-to-le, syn-co-pe, di-as-to-le. 4 Remember that the Greek termination itis has long i; hence, irītis, gastrītis, bronchītis. 5. In the pronunciation of Latin words the "English method" is to be preferred to the Roman or continental; hence, pīa māter, not pïa mäter, etc. 6. c is pronounced like k before a, o, u, and like s before e, i, y, æ and œ; in Greek words, kappa is always like k; hence, pachydermatous—pak-i-derm-a-tus, cocci—kŏk-sī, etc. 7. g, in Latin words, is pronounced hard before a, o, u, and soft (like j) before e, i, y, æ and œ, gamma in Greek is always like g in give; hence, fragile—fraj-il, tergiversation—ter,jĭv-er-sa-tion, malpighi—măl-pĭ-ji. 8. Proper names and words derived from them conform to the peculiar personal pronunciation of those names; hence, Dahlia, Fuchsia—fook-sia, Quassia—quŏshia, etc.

These eight suggestions, if carefully heeded, avoid many embarrassing slips of the tongue.

CREMATION.

By J. R. Laine, M. D., Sacramento, Cal.

Read before the Sacramento Society for Medical Improvement.

[Concluded from page 462.]

So imperious and overwhelming is the need of room for the living, that but little respect for the needs of the dead is possible. The scientific methods of preserving and protracting human life increase these necessities. The pressure increases every year. The population increases and the area occupied by dead bodies is multiplied. A continuance of present conditions must in the near future cause some of the sentiments and usages long held sacred, to disappear as altogether insignificant. In Europe, temporary cemeteries have long been a necessity. Many yars ago, Jacob Grimm declared that in the church-yards of Germany, it was almost impossible to find a grave which had not been at some time disturbed for the admission of additional occupants. In these temporary cemeteries, a few years limit the right of the actual tenant, whose remains are then taken up and consigned to the smallest space required to hold them. Switzerland allows

such removal after seven years, Germany, fifteen years, and France concedes only five years, during which the inhabitants of one of these graves, may remain undisturbed in his so-called place of everlasting rest. In our country, the pressure of the living upon the dead has not, except in cities, been experienced, but it is nevertheless iminent in all its ghastly intensity. Already in almost every considerable city in the land, burial in a well kept and commodious cemetery is a privilege of the comparatively rich; and could the subterranean tenant read the grudging expression in the speculative eye he would tremble for the validity of his title. The continued reservation of land for cemeteries is simply a question of time. The land whose value is a matter of continual increase is already admitted to be too valuable for such use. It is easy to forecast the time when there will be no sentimental influence sufficient to resist the financial or economical reasons in favor of secularizing cemeteries now most venerated and admired.

These are not the only reasons which render one's right to his grave the most uncertain and insecure. There must be added accidents by flood, which sweep away the sheltering earth and expose the recently interred bodies to view, to be devoured by beasts or trodden under foot. Add to these unavoidable accidents due to the uncertainty of elements, the audacity and enterprise of that infamous fraternity that rob graves for a ransom, and the Jerry Crunchers, who carry on a nefarious traffic for a pittance, and we may judge how little sanctity attaches to the grave, and how slight is the tenure by which even the most sumptuously interred hold possession of their underground dwellings. Very many persons, who descant on the practice of inhumation as a venerable institution of ancestral authority which it would be impious to lay aside, are mere slaves to custom and routine. They are being rapidly brought to face conditions which imperatively require them to examine the subject with reference to a change. The converting of cemeteries into sites for warehouses, manufactories, and railway stations, and the scandalous and insufficient burial of the dead, which so often accompany the operation of interment, constitute an argument in favor of cremation.

The sanitary arguments in favor of cremation have never been answered. Some American physicians, while conceding nearly all that the supporters of cremation allege in Europe against interment, deny in part the validity of the objections on this side of the

ocean. The reasons given possess no other force than plausability. Deficiency of room for the accommodation of the dead with its repulsive consequences in close proximity to dense populations is a condition of many large cities in the United States. Then considering how rapidly our cities increase in population, there are developed all the incidents that make the question an important one to the sanitarian. New Orleans is one of the cities to which every argument valid in Europe in favor of cremation is already applicable, and there is no city or town in which the introduction of the method would not prove a safeguard against probable peril to life and health. When Sir. Henry Thompson, in 1874, published, as his conviction, that "no dead body is ever placed in the soil without polluting the earth, the air, and the water above and about it," the saying at once called forth a corroborative response from eminent physicians and men of science in nearly every part of Europe and in some parts of the United States.

The polluting nature of the dead body decaying in the ground is just as well established and as generally accepted by scientific men as are the poisonous qualities of the most deadly drugs. Instances in illustration of the fact are sufficiently numerous to convince the most skeptical. Instances of the sudden death of grave diggers caused by descent into vaults are literally multitudinous, it being, in fact recognized as one of the perils of the occupation. Sir Henry Thompson mentions cases that have recently occurred in different localities in England. In 1852, three grave-diggers in Paris suddenly died from accidentally breathing the concentrated exhalations, which escape from coffins. It is generally conceded that fetid air exhaled from the dead is fatal if breathed in a concentrated state. Even if dissipated by the wind or mixed with the atmosphere, it is well known to lower the vital powers of persons exposed to it. Low fevers are known to result from the same cause. Some of the most illustrative facts bearing upon the subject are furnished by the old English churches with their old burial vaults. Dr. Copeland relates that a gentlemen of his acquaintance was poisoned by a rush of foul air from the grated openings at the side of the church steps. He was seized with a malignant fever which he communicated to his wife. There are well authenticated cases of the pew-openers being infected while shaking the mattings of church floors, these mats being saturated with the poison of the vaults. The dwellers in the neighborhood of the pestilential old grave-yards of London remained persistently incredulous about

the cause of prevalent epidemics, because they could smell nothing offensive in the foul air which they daily breathed. Medical men accustomed to the dissecting room could instantly detect the peculiar odor, and could even distinguish it from the stench of the sewers. A very significant fact is the extreme vitality of the morbid germs which lodge in and about graves, In 1828, the plague broke out at Modena, in Italy, as a consequence of an excavation in the ground, where three hundred years previously the victims of the plague had been interred. At Eyam, in Derbyshire, an excavation made a few years ago in the ground, wherein victims of the plague had been buried in 1665, caused an outbreak, not of the plague exactly, but of a malignant epidemic new to that locality. In 1843, the population of Minchinhampton, England, were nearly decimated by a disease manifestly caused by using as a fertilizer for their gardens the rich soil of an abandoned graveyard. In 1823, an outbreak of the plague was confidently traced to the reopening of a disused graveyard at Kelioub, fourteen miles from Cairo. Dr. Lyon Playfair gives it as his opinion that the fevers so prevalent in Rome, during a part of the year, are due to exhalations from the soil impregnated with animal matter.

In France, Switzerland and England, the trades of the grave-digger and the undertaker are ranked among the unhealthy occupations. Dr. Pietra Santa, of France, says of grave-diggers, that only the strongest men choose the work, and that the duration of their lives is only two-thirds that of their compatriots. In the middle ages, when burial in churches was common, the grave-digger's chances of life were not better than the chances of the soldier of a forlorn hope. "They fell victims by hundreds to their horrible duties," says Wegman Ercolain. Professor Petntekofer, of Munich, has shown that there is a ground air which differs from the atmosphere. The ground air is made up of the same gases, viz.: oxygen, nitrogen and carbonic acid, but the proportion of these gases in the air beneath our feet is subject to great variation, while in the atmosphere, it is nearly constant. He showed that the ground air contained a greater proportion of carbonic acid than the atmosphere, and that the ground is pervaded by water and gases to the depth of twelve or fourteen feet, the ground water occupying the pores and crevices of the earth when the air is driven out. In his report to the Bavarian Government on the cholera epidemic of 1854, he explains what sanitarians will all admit that the ground, to a certain distance, is the scene of

a continual circulation, the air and water changing places with the rise and fall of water. In this movement, when the soil is filled with water, the morbific germs contained in the soil are forced upward to mingle in the atmosphere we breathe or run off into streams or wells from which we drink. On the other hand when the water falls, it carries into the soil any germs and impurities, with which it may have become polluted on the surface, and when there is a general condition of low water, may reach the wells from which water for drinking is used and in this manner proves a source of infection. Those, who in Germany, have watched the course of certain epidemics of typhus fever, for example, concede the connection between the sinking of the ground water with the consequent accession of morbid germs to the atmosphere, and the outbreaks of zymotic epidemics.

It would not be difficult to prove incontestably the infectious and poisonous agency of decaying animal bodies. In the Italian villages of Ritondella and Bollita, a frightful epidemic raged a few years ago, which was distinctly and unequivocally traced to the cemeteries, which occupied the top of a hill from whose base issued the springs used by the villagers for domestic purposes. The deadly qualities of the decaying remains were carried by the rain water through the earth until the springs were poisoned. It is not difficult to come to the conclusion that every dead body consigned to the earth, no matter how far down, must necessarily prove to some extent a source of corruption and infection. Prof. Reinhard is authority for the statement that water from a well one hundred feet from where large steers, victims of the cattle plague, had been buried one year before at a depth of twelve feet had a fetid odor and indicated the presence of butyrate of lime. In Manchester in a few hours after graves have been opened, it has been found necessary to artificially ventilate them before men could descend, on account of being literally full of carbonic acid gas, which had flowed in from the surrounding soil. In the strata of air lying, in a profound calm, above a cemetery, Prof. Salim, of Maulua, discovered an organic corpuscle, the (septo-pneuma), which considerably vitiates the atmosphere, altering it to the detriment of the human economy. "This substance," says Dr. Pietra Santa, "which it is easy to collect and isolate, if placed in a solution of glycose produces the phenomenon of putrid fermentation, and gives birth to a considerable quantity of bacteria similar to those which are manifested in butyric fermentation. Some drops of this solution injected under the skin of a pigeon cause symptoms

of typhoid infection and death supervenes on the third day. Dr. Wolfred Nelson, in his correspondence to the California State Board of Health, takes occasion to say that Panama receives her water from a few old-time wells, in a small ravine, within two hundred feet of a new cemetery and fully forty feet below its level. From July, 1884 to April, 1886, eight hundred and eighty-four bodies had been buried in the earth, and several hundreds had been placed in stone niches at Baredas. Near by are the Jewish, Chinese and foreign cemeteries. The cemeteries and wells are under one management. The owner has a government contract for burying the dead. The wells drain the cemeteries, and the owner sells the water. The one furnishes victims for the other, and yet people do not hesitate to drink the cemetery drainage and wonder why Panama is unhealthy.

Water impregnated with nitrates and nitrites furnished by adjacent graves is often peculiarly tempting to the appetite from its brilliant sparkling appearance and mineral quality. The *Lancet* says: "The surest carrier and most deadly fruitful nidus of zymotic contagion is the brilliant, enticing looking water charged with the nitrates which result from decomposition of animal matter." In this connection, it would be interesting to estimate the influence upon mortuary reports by the contamination of water generally by the burial of dead bodies. If all of the burials on the tributaries of a large stream were to be taken into account it might occasion some alarm among those who depend upon the stream for their water supply. If it be once admitted that the practice does, in an appreciable degree, deteriorate the water in a stream, it follows that an increase of population and a greater number of burials will increase the defilement of the water. When a dense population is settled in the valley and on the tributaries of the Sacramento, will not the multiplied burials have an appreciable influence upon the health of cities that depend upon the river for a supply? This danger, in addition to the increased quantity of sewerage that will find its ultimate way into the stream, should be sufficient to excite the apprehension of thoughtful persons.

There is an old Roman saying that the health of the people is the supreme law, and therefore, any custom that can be shown to be injurious to health in a general way is a subject for discussion and reform, and no class of men are in such a position to command attention upon this subject as the medical profession. It is a notorious fact that the daily press of New York city gives timely warning to the visitors of one of its beautiful parks not to linger in

it after nightfall upon pain of being stricken with illness. The site was once a populous burial place.

The only adequate substitute for interment is cremation. The subject has not been discussed so much in America as in Europe, but enough thought has been provoked to lead to the conclusion that inhumation is a practice opposed to humane sentiment, public health and high civilization. The cemeteries of San Francisco will doubtless not remain where they now are another quarter of a century, and their sites will certainly be occupied by a dense population. No doubt future sanitarians will point to the past occupants of the locality as the cause of many fatal cases of disease. As it is the prevailing winds sweep over the cemeteries directly to the most populous portion of the city. It is not difficult to conjecture why a city so favorably situated for salubrity should so frequently suffer from epidemics that are purely and essentially filth diseases. The same may be truthfully said of almost every large city in any land. Disraeli declared that, "what is called God's acre is not really adapted to the country which we inhabit, the times in which we live and the spirit of the age."

It is not necessary to enter into the details easily accessible to those who desire to investigate the subject of apparatus for cremation. It is sufficient to say that one of three or four slightly different arrangements can be set up at no very great expense in connection with an edifice for the accommodation of the relatives and attendants. Funeral ceremonies deemed appropriate can be performed with the advantage of avoiding all exposure to rain, cold, damp ground and similar causes of sickness and death. As to the preservation of the remains, there will be ample opportunity for the exercise of judgment and for the indulgence or gratification of sentiment. In twenty minutes or a little more the body is resolved into its primary constituents, and the relics precious to affectionate kindred are harmless wherever deposited. A process too horrible and disgusting for contemplation as carried on in the grave is in a few minutes effected by the pure and beautiful agency of fire. The water, nearly seventy-five per cent. of the whole, with carbonic acid and ammonia have gone into the atmosphere as vapor, while the mineral constituents, more or less oxidized, with the lime, phosphorus and magnesia, etc., remain as ashes. It is difficult to conceive that rational affection, following the departed with cherished memories of their looks and ways in life, would rather think of them as rotting in the ground, hideous skeletons, or yet worse, masses of corruption and worms, than as having at once become a portion of

the all-pervasive life of nature, and a little heap of ashes that may be kept in a flower vase or graceful urn. Then there is avoided all danger of premature burial, a dread from which even great minds have not been altogether free. The body snatchers' occupation would be gone, and those who work for the ransom of stolen remains would be compelled to abandon this ghastly calling. One of the greatest practical inducements for the introduction of cremation is the reduction it would effect in the expense of funerals. The wealthy and ostentatious might make the process and attendant ceremonies as expensive as they chose, as the Grandees of Rome expended fortunes in erecting mausoleums that were to contain the family urns. There might be no limit to mere decoration of urn and tomb, but the necessity for unreasonable expense would be eliminated from the funerals of the needy.

The expense of a funeral among people of very ordinary means, apart from the cost of the burial lot, is not far from one hundred and fifty dollars. The average cost of burial lots in Woodlawn and Greenwood, New York, each containing space for six graves, is about four hundred and fifty dollars, or seventy-five dollars for a grave. The cost of single graves is about twenty-five dollars in public lots. The cost of a modest headstone and footstone and their erection will add seventy-five dollars more, making a total cost of two hundred and fifty or three hundred dollars. This sum must be paid in advance by the poor, to pay which only they who have experienced the trial know what sacrifices are made. These expenses in no inconsiderable degree influence the income of the medical profession, who are compelled to give way to the inexorable necessity of burial. On the other hand, apart from carriage hire, which may be presumed to be the same in each case, the cost of cremation decorously performed including the case in which the body is carried to the crematory, should not exceed forty dollars, while the cost of a terra-cotta urn of classic pattern, the most tasteful and appropriate possible should not exceed five dollars. Add ten dollars for a niche in the columbarium in which the urn may find a permanent resting place in case the friends should not prefer to take it to their homes, and still another five dollars for an inscribed tablet under the niche, and we have sixty dollars as against four or five times that amount for inhumation. Of course the expense would vary in different localities, but there is no place where the difference would not be in favor of cremation. When to the cost of inhumation is added the great and ever increasing value of land set apart for cemeteries near large cities we recog-

nize an economical argument of prodigious force in favor of cremation.

Some of the objections to the new method, and especially such as involve purely theological questions, need not be considered here. The opposition of some is the opposition to anything that seems new. It is not for the medical profession to settle the question of the resurrection of the body when the body has been burnt or when it has slowly crumbled in the ground. The question is not on the approval of the ancient Hebrews, the early Christians or of a guild of modern undertakers, but it is a question of the putting away of the mortal frame of the loved ones in the least painful and most effectual manner so that their dangerous qualities will do no mischief to the living. Social duty and common courtesy demand that the most effectual methods demonstrated by scientific skill shall be utilized regardless and irrespective of mere prejudice. There is but one objection that has been urged against the practice that is worthy of notice: It has been stated that cremation would be a means of concealing traces of poisons administered to kill and thus thwart or prevent the discovery of crime. The contrary might be anticipated. With the introduction of the new method there would doubtless be an increase of vigilence and the observation of any suspicious circumstances would be sufficient to warrant delay and investigation. The danger would really be quite insignificant. Embalming offers as ready means of concealing traces of poison and yet who knows of any one resorting to the method. Let the poisoner have his victim embalmed and he can never be convicted on any evidence furnished by the remains. The medico-legal objection can thus be used as an argument in its favor.

It is scarcely logical to insist that we shall endure the prevailing custom on account of its being time-honored or because of the roominess of our country. Neither does it reconcile the candid observer to present conditions, because there is daily witnessed an indifference to the pollution of streams with offal and the bodies of animals. We are asked why we do not denounce these abuses that lie on the surface, that are an outrage on decency and let alone those things that are under cover of the earth. That the pollution of streams is a misdemeanor punishable by law no one will deny, and to urge that we should maintain other abuses not prohibited by law because the law is not enforced, in the first case, is an argument that must break down by its inherent weakness. It must be admitted that animal remains exposed to the air and speedily con-

sumed by the natural scavengers of land and water, are unquestionably less deleterious than if buried in the earth.

If these sketches of a subject, that must in the near future force itself upon the notice of the profession, will tend to bring from them at all times expressions based upon conviction, and not biased by past prejudices or present influences, the purpose of the paper will have been served. Its narrowness of scope and paucity of illustration is clearly apprehended, but the prescribed limits would not permit of its amplification.

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MEMORANDA.

Rupture of the Quadriceps Extensor Femoris.

The subcutaneous rupture of muscles or tendons is a comparatively common occurrence, the rupture usually taking place at the junction of the muscular with the tendinous tissue. Erichsen says that it occurs more frequently from the muscular contraction, which must necessarily precede it, than from direct violence. Gross, Ashurst, and indeed all of the authorities I have found it convenient to consult upon the subject, convey the idea that much force is always necessary to cause this kind of an injury, especially when a muscle or tendon of considerable size becomes ruptured. The few cases that have heretofore come under my observation confirm this view, or indicate that sudden and unexpected tension is necessary, even when not accompanied by very great strain. When therefore the complete rupture of so powerful a muscle as the quadriceps femoris takes place during the ordinary efforts of walking, and without stepping upon a pebble or other similar substance, or in any manner encountering an obstruction which would in the slightest degree impede locomotion, it is deemed worthy of permanent record. The history of such a case is briefly as follows: G. W. D—— aged 75 years, 5 feet 8 inches in height, and weighing 188 pounds, a well preserved and robust man, apparently ten years younger than he really is, and of good habits, while returning from a couple of hours recreation at fishing with a rod in the Sacramento River on the 20th of last month, and while carrying a small string of fish in his left hand as he was slowly wending his way homeward, distinctly heard a snap, as if his thigh bone had been broken. Falling backwards instantly, he endeavored to prevent himself from sustaining injury by quickly throwing his arms behind him for support, but so sudden and unexpected was the seizure that he fell to the earth before he could realize what had occurred. He says, "I first heard a crack and away I went, heels over head, turning a complete sommersault, I then flopped around on my face and tried to get up, but could not; I tried again and failed. By this time I realized that my leg was paralyzed, and I called for the assistance of the Yard-Master of the S. P.

Co., who soon placed me in a hack and sent me home." Upon reaching his home I was immediately summoned, and readily diagnosticated a rupture of the quadriceps femoris at its insertion into the patella, the separation being complete and the detached end being distinctly felt fully two inches above the upper border of that bone. Treatment for the first two weeks consisted in the relaxation of the ruptured muscle, by position, and the application of an evaporating lotion to subdue what inflammation might ensue. There having been but little pain at any time, no anodynes were required. He is now, just a month after the accident, able to move about in his room upon crutches, the limb being properly bandaged, and the joint rendered immoveable by suitable appliances.

W. R. CLUNESS, M. D.

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DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M. D., Sacramento, Cal.

Management of the New-born Child.—Nothing made of wool should be worn next the skin: however soft and fine, it will often tickle and irritate, making the child fretful and cross. A cotton-flannel slip, with a diaper of the same material (soft side next the skin), are sufficient for the first dressing. No bands, no skirts, nothing to punish the little fellow. In addition, it may be wrapped as warmly as necessary. The cord should first be tied as usual with two ligatures, and divided between them. After the child is cleansed (using melted lard or vaseline instead of soap and water), the end of the cord is snipped off along with the ligature and the gelatine thoroughly squeezed out; after which it will rarely bleed to any amount, but for fear it should, it is tied again as close to the abdomen as possible without including the integument. It is then left entirely alone and in twenty-four hours will be nothing but a crust. The "belly-band," however made, is a relic of barbarism—uncomfortable and mischievous, often causing and never preventing hernia. It is a well-known anatomical fact that the inguinal region is the weakest of the abdomen. Instead of protecting this the band, on the contrary, forces the intestines down into it. Even if the umbilical opening has not properly closed, the pressure of the band about the circumference of the body will only crowd a knuckle of intestine into the aperture and effectually keep it open instead of allowing it to close, which it will generally do if left to itself.—DR. ADY, in *Med. and Surg. Journal*, July 28, 1888.

The Diseases Grouped as Puerperal Fever.—The expression "puerperal fever" should be discarded. As GUÉRIN remarked at a late meeting of the Academy of Medicine, among those physicians who know how to diagnosticate these maladies correctly, it no longer expresses all the troubles following confinement; and, indeed, it has very little sense in modern obstetrical science—no more than pulmonary fever as express-

ing the various inflammations of the thoracic organs. If we are to continue to designate septicemia, metroperitonitis, lymphangeitis, uterine phlebitis, perimetric phlegmon, general peritonitis, as well as purulent and putrid infection, as puerperal fever, we shall not have advanced much in the direction of precision. Guérin, after Cornil, defines three states: (1) A peritoneal form, giving rise to a general infectious peritonitis with pus; (2) a pyemic form, arising from phlebitis or other causes; (3) a form called puerperal septicemia, caused mostly by decomposition of the placenta, retained either in part or as a whole. The last form is often curable by antiseptic injections, while the two first forms are generally incurable. In the purulent infection the temperature mounts abruptly and the pulse is rapid, while in the putrid infection the fever is slow, something like hectic fever. Distaste for food is also noticed, with abnormal heat, and a rapid, compressible pulse, and there is no shivering or sweating stage. At a previous sitting of the Academy WIDAL had presented his ideas of the specific form of microbe that causes infection in puerperal affections, and reached the conclusion that in them all it is the same—the streptococcus pyogenes. This microbe may cause infection in lying-in women, just as it does in surgical cases, and, whether it produces suppuration (the pyemic form), or infiltration of the tissues (the septicemic form), or false membranes, or, again, clots in the veins, the form of the microbe is the same, and, strange to say, seems to be indentical with that of the microbe of erysipelas. In rabbits it is possible to produce any form of infection with the same microbe, as has been proved by both Widal and Arloing, working independently at the same subject. It need hardly be added that strict antisepsis is the only practical indication to be drawn from these facts.—*New York Medical Journal*, July 7, 1888.

Electricity in Extrauterine Pregnacy.—After relating a case in which electricity was successfully employed, DR. BUCKMASTER lays down the following propositions: (1) The faradic current is uncertain and not free from danger. The sittings must be repeated and prolonged. (2) The interrupted galvanic current is more effective than the faradic, and by far the most dangerous of the three. It should never be used, because the current about to be mentioned is perfectly safe and will accomplish all that is claimed for this. (3) The uninterrupted galvanic current will cause the death of the fetus at once; it will relieve the intense pelvic pain by the sedative influence of the positive pole placed in the vagina; *it is free from danger.* The following rules for the application of electricity, says Dr. Buckmaster, may be observed with advantage: (1) Use positive pole for the vaginal electrode. (2) The electrodes being in place and the connections secure, turn the current on slowly and gradually, by means of the rheostat until the patient complains of pain. (3) Press upward on the vaginal and downward on the abdominal as strongly as the patient can bear. (4) If the immediate destruction of the fetus is imperative, and the patient cannot bear more than twenty milliampères, use an anesthetic and pass a 100 milliampère current. (5) Decrease the current gradually at the end of fifteen minutes.—*Medical News*, July 21, 1888.

SURGERY.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal.

The Curability of Urethral Stricture by Electricity.—DR. E. L. KEYES summarizes a very elaborate and fair-minded article upon the above subject as follows; In conclusion, I may state that electrolysis with a very mild current—I prefer to put it at less than two milliampères and a half—does no harm, in fact, does nothing I can appreciate, and does not interfere with the benefit to be derived from ordinary dilatation. I believe that a strong current is full of danger, both immediately from irritating effect, and ultimately from cicatricial effect; and that employment of the negative pole does not prevent this. My study of the subject and the experience it has brought me, digested with all impartiality I possess, lead me to state that the allegation that electricity, however employed, is able to remove organic urethral stricture radically, lacks the requirement of demonstration. The confidence of its advocates that it will radically cure organic fibrous stricture is, in my opinion, due either to the combined credulity of the patient and imagination of the surgeon, or to some special but fortuitous act of Providence, upon the coöperation of which, in the case of his own patients, the general practitioner cannot with any confidence rely.—*New York Medical Journal.*

Shock.—What can we do to prevent or diminish shock? (1) Wait for reaction. (2) Never neglect to calm those suffering mental shock by a cheerful word and personal presence. (3) Give alcohol, either spirits or wine, a quarter of an hour before the anesthetic. (4) Make the anesthesia short; never begin it until everything is ready; suspend it during the less painful dressings. Consciousness returns *tardily*. We keep up the anesthetic longer than is necessary. (5) As rapid an operation as can prudently be done. (6) As short a dressing as practicable. (7) As a cardinal point, avoid chilling the patient. To promote reaction after the operation: (1) Persistent and *carefully* applied *dry* heat. (Be over careful about accidental burns.) (2) Liquid nourishment, combined with a stimulant and a little laudanum by enema. (3) Subcutaneous injection of brandy. (4) Aromatic spirits of ammonia by the mouth. Champagne is sometimes retained when other things are rejected. (5) Black coffee and brandy, the stimulant *par excellence* when it can be retained in the stomach. (6) Quiet; a horizontal, or more than horizontal position; sleep; assurance that all is over and doing well. Modern surgery has won *three* great triumphs: It has substituted sleep for pain. It averts secondary hemorrhage by the animal ligature. It prevents fermentation by germicidal applications. Can we add a *fourth*, by stilling the nervous system, and averting, or diminishing, secondary shock?—D. W. CHEEVER, in *Boston Med. and Surg. Journal.*

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By Wm. Ellery Briggs, M.D., Sacramento, Cal.

Three Cases of Retinitis Pigmentosa Improved by Treatment. Dr. Carl Mettinger (*Klin. Monatsblätter f. Augenheilkunde*, September, 1888) describes the results of treatment in three cases of retinitis pigmentosa by diaphoresis. The first case was a man æt. 38, who was under treatment by diaphoresis for five weeks. At the first visit vision was $\frac{2}{7}$ normal on both sides. The media were clear with the exception of minute double posterior polar cataracts. Pigmentation of choroid irregular. The visual field was of nearly normal extent. When discharged, vision had increased to $\frac{1}{2}$ normal in each eye and the hemeralopia which had previously prevented his going about at night was much improved. The second case was in a young man æt. 18, who was treated for one week. When admitted the lens of the left eye was clear, the anterior part of the vitreous was rendered hazy by a veil like opacity, the papilla was pale and the vessels, especially the arteries, were narrowed. The pigment spots were most marked in the nasal and temporal portion of the retina, and were about the diameter of the papilla from the nerve entrance. These pigment spots were in places mixed with white, degenerated patches. The vision was equal to $\frac{2}{7}$ normal. In the right eye there was incipient cataract with other pathological changes similar to the left side. Vision $\frac{1}{20}\frac{5}{0}$. The treatment was diaphoresis with tea. Vision improved in the left eye to $\frac{2}{3}$ and in the right to $\frac{1}{10}$ normal. Visual field remained unchanged. The third patient, a young man of 19, was under treatment for four weeks. His vision had been imperfect since he had convulsions at the age of two years. His sight had diminished rapidly during the past three months. Family history. Syphilitic taint not discoverable. In both eyes there was beginning posterior polar cataract. The retinal vessels, especially the arteries, were poorly filled with blood and pale, there were detached and confluent pigment spots above the papilla. There was also a pigmented zone more peripherally. Vision in left eye $\frac{3}{20}\frac{}{0}$ and in right $\frac{3}{20}\frac{4}{0}$. The treatment consisted of iodine ointment rubbed into the temples and hypodermic injections of pilocarpine as the tea did not produce diaphoresis. This was followed by free salivation and perspiration. When discharged, vision had improved to $\frac{2}{3}$ in left and to $\frac{1}{10}$ in right eye. Most authorities state that medication is powerless in this disease. The author's experience in these cases leads him to believe that treatment, especially in the young, is not so hopeless as it is generally regarded. In view of the fact that the vision of one eye was improved from $\frac{}{20}\frac{}{0}$ to $\frac{2}{3}$ and of the other from $\frac{3}{20}\frac{4}{0}$ to $\frac{1}{10}$ he thinks we should take a more hopeful view and give diaphoresis a trial in these unfortunate cases.

Epilepsy Cured by Removal of an Aural Polypus.—M. Saurez de Mendoza reports the case of a man, 28 years old, the subject of epileptic attacks which had persisted for nine years in spite of a great variety of treatments. Ten years previously a so-called meningeal fever was followed by a discharge from the ear, which had continued to date. Examination revealed the presence of an enormous venous, red polypus in the left meatus which projected as far as the tragus. During the exami-

nation touching the tumor produced a violent epileptic attack. The patient recollected that whenever he touched the affected ear he had been similarly affected. The day following, an examination caused a repetition of the crisis. The operation for the removal of the polypus required delicate manipulation as the slightest pressure produced vertigo, the precursor of an epileptic seizure. The author removed the growth with a snare assisted by a small dressing forceps to elevate the tumor. To remove the entire growth and cauterize its seat required several sittings. In twenty days the discharge had ceased and there was no recurrence of the epileptic symptoms.—*Revue Mens. de Laryngol. Otol. et Rinologie.—Lyon Médical*, Sept. 2, 1888.

The Physiological Action of Ethyl Chloride Upon the Cornea.—M. Dubois states that chloride of ethyl introduced by any method into the organism of the dog produces in a few hours singular corneal opacities. These opacities are due to an appearance resembling a network of vessels within the corneal tissue. These networks are caused by sympathetic infiltration of the vitreous tissues and edema of the conjunctiva. The lesion is not similar to that resulting from section of the fifth nerve, there being no ulceration and no anesthesia. The changes are produced by the medium of the aqueous, which is charged with the ethyl chloride. This explains the irregular astigmatism which is observed after administration of this anesthetic.—*Progrés Médical*, Sept. 15, 1888.

Ocular Troubles Resulting from Dental Disease.—In a lecture on ocular disease in changes of the fifth pair, and particularly in affections of the dental branch, Dr. X. Galezowski makes the following statements: A frequent cause of ocular inflammations and anomalies of accommodation is dental disease of the superior maxilla. As the teeth receive their nervous supply from a branch of the fifth pair, any irritation produced by a tooth may be transmitted through its nerves to the central origin, whence it is propagated with more or less intensity to all of the branches. The eye, in which several of these terminate, receives the *contre-coup*. These facts are explained with care by classical authors. The influence of the teeth upon the eyes may become manifest at any age. It is not rare to find it in children one or two years old. At the time of the first dentition the eyes may become watery and small ulcers appear on the cornea. In a child of eighteen months or two years of age with corneal disease, one should examine the teeth. In obstinate cases of keratitis the teeth will often be found tender, the gums red, tumified and tender on the side of the affected eye. If the exit of the tooth be facilitated by an incision through the gums all this will subside in a few days, and the cornea will rapidly heal. This relationship is also frequently noticed between the ages of five and seven years—the period of the second dentition—which may continue during several years. Children are often affected by obscure phenomena during this interval, such as palpebral spasms, which prevent fixation without great fatigue, and lacrymation. These convulsive movements may extend to the facial muscles and produce violent contortions resembling epileptiform or choreic attacks, and later affecting the arms, legs and even the

whole body. It is almost impossible to control the symptoms unless the true cause be recognized. Extraction of the offending teeth hastens the appearance of the new ones and the unfavorable conditions subside. One may often think himself in error when a patient, after a too short vacation, has a return of the symptoms upon entering his classes. Such a child may have spasms which only simulate the genuine. It is easy to distinguish this condition. First examine for diseased teeth. If no cause is found attract the childs' attention, and if the spasms cease while the subject is intently looking they are simulated, but if they are more intense during this period they are genuine. The third dentition may also cause visual disorders. The appearance of the wisdom teeth, if excessively painful and causing much swelling and inflammation, may necessitate their extraction to save the cornea of that side from destruction. Dental caries at any age frequently causes ocular disease. In adults a great variety of forms are observed, the most common of which is reflex accommodative asthenopia. This is manifested by the patient's inability to fix his vision on small objects for any length of time without violent pain in the temples, the eyes becoming congested and weeping, and the sight blurred. After resting the eyes they feel relieved, but the same phenomena appear when they are again strained for a few moments. v. Graefe and Donders attributed accommodative asthenopia to refractive errors. However, all cases of accommodative asthenopia are not due to refractive errors, and do not require glasses, but are frequently caused by the influence of dental caries. The author relates several cases in which treatment of diseased teeth produced almost immediate cessation of severe ocular symptoms of various types.—*Progrés Médical*, July, 21 1888.

DERMATOLOGY AND VENEREAL DISEASES.

By G. L. Simmons, Jr., M.D., Sacramento, Cal.

Cocaine and Lanolin in Burns.—Dr. Ernst Wende strongly recommends a mixture of four parts of hydrochlorate of cocaine and 100 parts of lanolin as an application for burns. In addition to occluding the air, it allays the pain. The cocaine must be pure, and the ointment should be freshly prepared.—*Nouveaux Remèdes.*

Washing Out the Bladder Without a Catheter.—Péan describes (*Gazette des Hôpitaux*) his method of washing out the bladder without a catheter. The disadvantages of introducing an instrument through a sensitive urethra into a sensitive bladder have long been recognized by surgeons, and it was to avoid this that Péan devised this method. The apparatus consists of a reservoir, one and one-half to two yards of rubber tubing and a special metallic canula. The reservoir, if of glass, can easily be graduated by running a strip of plaster down the outside and marking a scale upon it. That portion of the canula which is introduced into the urethra is 5 cm. in length, it is conical and terminates in an olive tip. At the other end is a flange, which, when pressed against the meatus closes the urethra. Close to the flange is a stop cock. The dia-

meter of the internal orifice of the No. 1 canula is 1⅓ mm. giving a pressure of about 16 gm. There are five other canulæ in the set, of larger size and giving higher pressures, In order to make the injection, the apparatus is prepared by filling the reservoir with fluid and expelling all the air from the tube. Place the reservoir about four feet above the patient, who should lie upon a couch or upon a surgical chair, and introduce the canula into the urethra. On opening the stop cock the fluid fills the urethra, presses forward and distends the membranous portion and enters the bladder. When the patient desires to make water the stop cock is closed, the canula withdrawn, and then reintroduced after micturition. This can be repeated as often as required. It is very important that the injection should be stopped when the desire to urinate comes on. It is not necessary to insist on the recumbent position, but it facilitates the operation by relaxing the abdominal muscles. By this procedure, all possibility of injuring the bladder, or urethra is avoided. Amongst antiseptics, he prefers boracic acid in a four per cent. solution at a temperature of 38° to 40° C.

Nodose Hairs.—At a meeting of the Medico-Chirurgical Society of Edinburgh, Dr. Jamieson exhibited a boy four years old exemplifying a condition described by Dr. Walter G. Smith as "nodose hairs." His scalp was fairly well covered with dark hair, which, however, in no part exceeded half an inch in length and in most parts was still shorter. To the hand, it felt harsh and wiry. On examining the hairs under the microscope, most of them showed more or less distinctly a regular alternation of swellings and contractions. The nodes were pigmented; the contracted portions were devoid of color. Scarcely any trace of imbrication was visible on the nodes, but could be plainly made out on the contractions. It was found that two days were required for each node to grow. It was also seen that the contraction and node formation did not occur within the follicle, but first appeared on the hair shaft a short distance beyond its point of exit from the follicle. Possibly, therefore, the condition is due to a ryhthmical imperfection in the cuticle of the hair. Where this is well pronounced the hair is narrowed, its fibrous structure being, as it were, forced out to form the node. At all events the change in form is a secondary one, and takes place when the hair becomes subjected to the desiccating influence of the air. Two other children are similarly affected one a boy, aged six and one-half, the other a girl, aged two. In neither does it assume such well marked proportions, as it only implicates the occipital region, the hair growing pretty well in front, though in the boy it is too freely shed. No history of any similar defect in any of the ancestors can be made out. The father is alive and well. The mother died at the age of 30 of cancer of the uterus.—*Edinburgh Med. Journal*, Oct., 1888.

MATERIA MEDICA AND THERAPEUTICS.

By Wm. Watt Kerr, M. A., M. B., C. M., Professor of Therapeutics, University of California, San Francisco.

Mercury as a Diuretic.—The *British Medical Journal*, Sept. 22, 1888, contains a valuable article upon this topic by Dr. Talfourd Jones. After reviewing the literature of the subject, he reports a case of ascites, due to cirrhosis of the liver, which was completely relieved by the administration of three grains of calomel three times daily. It would appear that the diuretic effect of mercurial salts is secondary to their influence upon the liver. Thus, Dr. Noel Paton showed that mercuric chloride caused increased urea formation from a hemolytic action on the blood cells, and this increased amount of urea in the blood acts as a diuretic, stimulating the kidney to greater activity. Dr. Jones says that it is not necessary for the mercurous salt calomel to be converted into the mercuric salt before producing diuresis, as has been the theory suggested by some writers. He accepts Harley's statement, that calomel acts especially on the hepatic capillaries, relieves a congested condition of the blood vessels, and so lessens the mechanical pressure on the liver cells. He then argues that while calomel may not increase the secretion of bile during health, it may do so in disease, by removing impediments to the healthy action of the liver cells—notably by relieving congestion and promoting absorption of exuded lymph, which, by pressing on the hepatic cells, might impair their functional activity. The hemoglobin of the effete red blood corpuscles will then be more readily acted upon by the hepatic cells and converted into bile-pigments and urea, and the urea thus formed will stimulate the kidney and act as a diuretic.

Antipyrin in Aneurism.—In a paper read before the Academy of Medicine, M. Germain See recommended antipyrin instead of morphine, as an analgesic in the treatment of aneurism. He had used it in the treatment of thoracic aneurism for nearly two years, and found the precordial and cardiac pains rapidly disappear under its use, especially when given subcutaneously in doses of about four grains night and morning. Under the combined action of iodide of potassium and antipyrin, the dyspnea and oppression were relieved, whether due to catarrh, pressure on the bronchi, lung, or recurrent laryngeal nerve. M. Dujardin-Beaumetz regarded antifebrin as equally efficacious, and at the same time free from the dangerous symptoms that occasionally accompany the use of antipyrin. It might be given in doses of eight grains three times daily.—*Philadelphia Medical Times*, Sept. 15, 1888.

Sulphonal.—This new remedy appears to be giving considerable satisfaction as a hypnotic. It is only adapted to those cases in which the insomnia is due to excessive cerebration, and is utterly useless when pain is present. Some unfavorable symptoms have been noticed, as occasionally following its use, the most common being headache and vertigo; the only serious case was one recorded in the *Medical News*, Sept. 22, 1888, in which it induced repeated attacks of angina-pectoris in a patient suffering from arterio-sclerosis.

Oxycyanide of Mercury the Best of Antiseptics.—Compared with corrosive chloride (*Comptes Rend. de Soc. de Biol.*, July 6, 1888). (1) Its solution has a slightly alkaline reaction and precipitates albumen only slightly. (2) It is less irritant than solutions of sublimate. (3) There is less absorption by tissues than in case of sublimate. (4) Solution $\frac{1}{1000}$ does not attack, but slightly, the materials used in surgical instruments. (5) Tested by its power of keeping soup, the antiseptic property showed itself six times greater than that of the bichloride. (6) Tested by its power to destroy the micrococcus pyogenes aureus, the advantage was slightly in favor of the bichloride, $\frac{1}{1400} : \frac{1}{1300}$. (7) Employed on suppurating surfaces, or to render a mucous surface antiseptic, it furnishes much better results, because of the tolerance by tissues and of feeble absorption. The cyanide of mercury has about the same properties, but the oxycyanide is more powerful against the micrococcus pyogenes aureus. *American Journal Medical Science*, Sept., 1888.

Action of Carlsbad Water on the Gastric Functions.—SANDBERG and EWALD have determined, by a series of experiments, the effects of Carlsbad water on the functions of the stomach. This was done by subjecting patients to the water treatment, and examining the contents of the stomach, removed by means of the stomach tube. (1) Carlsbad water is a powerful gastric stimulant, so much so that half an hour after its ingestion it is often possible to demonstrate the presence of hydrochloric acid in the stomach contents. (2) After a four or five weeks course of treatment no diminution in the secretion of pepsine could be noticed. (3) The same is true of the rennet ferment. (4) In those cases in which, before treatment, the acidity was rather below normal, the secretion of pepsin and of rennet was increased. (5) Carlsbad water stimulates gastric activity more powerfully than common water of the same temperature. (6) Absorption takes place very quickly; most rapidly at a temperature between 122° to 131° F.—*American Journal Medical Sciences*, Sept., 1888.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, Cooper Medical College, San Francisco, Cal.

The Gingival Line in the Diagnosis of Tuberculous Phthisis.—In the year 1850 A. FREDERICQ called attention for the first time to a red line which occurs on the gingival border in various diseases. This line is intensely red in cases of acute phthisis and more bluish in chronic cases of this disease. This line was observed by him in the earlier stages of phthisis, and was considered not only of semeiotic but of prognostic value; the more rapid the course of the disease the more intensely red the line, and any diminution in the intensity of this redness was considered as a favorable sign. A bronchitis without this line was considered by him never to be of tuberculous origin. In 1854 Thompson again called attention to this line in phthisical individuals, and found that it was especially characteristic around the incisors of both jaws. He furthermore found that it occurred in all stages of this disease, and was occasion-

ally one of the earliest signs, occurring, however, less frequently in women. When the patient's condition was improved, Thompson observed that the line disappeared; the broader the line the more unfavorable the prognosis, which was also bad when light red spots occurred on the mucous membrane of the cheek. Saunders and Draper followed up the observations of Thompson, and concluded that the red line frequently attended tuberculosis, but could not be considered as characteristic of the same. More recently DR. GEORG STICKER studied the subject, and finds that the red line of Fredericq and Thompson is almost invariably present in phthisis, and may be considered one of the earliest symptoms of this disease. He furthermore found that the line was present in healthy women in the latter stages of pregnancy, and existed for a time after its termination. In other healthy individuals and in non-phthisical patients this red line is only exceptionally found, and if so, in the senile period of life. In young persons who are not phthisical it is never present.—*Münchener medicin. Wochenschrift*, Sept. 11, 1888.

The Diagnosis of Renal Tumors.—BERTHOLD STILLER adverts to the following, which he considers characteristic symptoms of kidney tumors: (1.) The tumor usually occupies but one side of the abdomen; the rapidly growing renal tumors of children, however, proving an exception to the rule. (2.) It is usually round in contour, thus differing from hepatic and splenic tumors, which have angular borders. (3.) The upper border of the tumor is not usually palpable, whereas the inner and lower borders can as a rule be felt. (4.) The renal growth being a retroperitoneal tumor, is neither in an active or respiratory manner moveable, unless the same be dislocated. Should the dislocated growth become fixed, it will still retain its retro-peritoneal character; if movable, however, it bears the character of an intraperitoneal tumor, which is not generally influenced by respiratory movements. An immobile tumor containing fluid (hydro or pyonephrosis, echinococcus) may simulate respiratory movement, owing to an adherent diaphragm causing a descent of the fluid. Subdiaphragmatic renal tumors loose all respiratory movement, when, in consequence of their size, the muscular power of the diaphragm is no longer able to dislocate them, or when they reach the pelvis and encroach on the bony structures. (5.) Owing to the retroperitoneal position renal tumors are as a rule entirely covered by the intestines. Should, they in their growth, attain the anterior abdominal wall, then the intestines are dislocated to the inner side of the kidney, whereas the vertical portion of the colon would lie immediately over that organ. This relation of renal tumors to the intestines, makes it possible to exclude all other abdominal growths. (6.) Percussion over the tumor will yield either a tympanitic or dull tone, with a limited vertical tympanitic area, which, if absent, can readily be induced in the case of a tumor of the left kidney by the introduction into the rectum of an effervescing powder. (7.) When large tumors exist which are with difficulty isolated from the liver or spleen, palpation on the right side will render clear the respiratory movements of the hepatic border, and on the left side eliciting the splenic figure of dullness will

assist materially in arriving at a proper diagnosis. (8.) Finally, a very important point is the determination of the encroachment of the growth toward the lumbar region, by means of palpation and percussion.—*Centralblatt f. klin. Medicin*, Sept. 1, 1888.

The Etiology and Curability of Tuberculosis.—Regarding the frequency of tuberculosis, PROF. BOLLINGER maintains that in large cities from 40 to 50 per cent. of all deaths may be attributed to this disease. Recent experiments in his laboratory show that milk may prove infectious, whether taken from cows suffering with local or general tuberculosis. As in other infectious diseases, the quantity of tuberculous material introduced into the economy, strongly influences the severity of infection. Only a few drops of undiluted milk from a tuberculous cow proved sufficient to produce typical miliary tuberculosis in animals, but when this quantity underwent any material dilution, its effects were negative. This latter observation would suggest the use of milk taken from many, rather than from one cow. The non-infectiousness of meat from tuberculous animals was proven by taking the muscles of twelve tuberculous cows and injecting the liquid obtained into the peritoneal cavities of sixteen guinea pigs; no tuberculosis resulted. With regard to the curability of tuberculosis, Bollinger refers to many necropsies made on individuals in whom lesions of a former tuberculosis are found. Whether the tuberculous patches thus found are still capable of transmitting tuberculosis, has been carefully studied by Dr. Kurlow. In all, twenty-six apicial affections of the lungs, without selection, were taken from individuals dying from some affection other than tuberculosis, and the following experiments were made: (1.) Inoculations made with material obtained from three simple cirrhotic patches in the apices proved negative. (2.) Inoculations made with material obtained from four cirrhotic patches infiltrated with calcareous matter, were likewise negative. (3.) Inoculations made with material obtained from twelve capsulated caseous patches on twenty-six animals, resulted in the development of tuberculosis in twenty of the animals. The experimental results show the in twenty-six suspected cases of tuberculosis of the pulmonary apices, seven only, 27 per cent., were non-infectious. For the microscopical-anatomical diagnosis, the fact is important, that all apicial affections of the lung are to be regarded as infectious, as long as caseous or caseous-calcareous patches are present. Those cases only can be denominated as cured in which simple cicatrices are present, with or without calcareous infiltration—*Wiener medizen. Presse*, Sept. 16, 1888.

Sacramento Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: NOVEMBER, 1888.

THE CASE OF THE LATE GERMAN EMPEROR.

The unseemly controversy now raging between Sir Morell Mackenzie on the one hand and the German medical attendants of the late Emperor on the other, notwithstanding it has assumed international importance, is nothing either more or less than a doctors' quarrel. And why is the bandying of bad words between medical antagonists "to fortune and to fame unknown" a whit more disgraceful than between leaders of the profession? Heaven safe us from such leadership at such a time!

What if Sir Morell did make an erroneous diagnosis, and, in consequence, institute a futile treatment? Greater men and better have done so before, and they will continue to do so to the end of time. What if Virchow did fail to discover cancer cells in the fragment of neoplasm submitted to his examination? Let us humbly renew Göthe's last petition, *merh licht!*—more light! What if the German physicians were jealous? Let him that is without blame cast the first stone.

At times, and this is one of them, we are almost constrained to adopt the classification of the cynic—great men are of two kinds, the little great men and the great little men.

NOTES.

DR. A. H. GIHON has been ordered to take charge of the U. S. Naval Hospital at New York. Dr. Gihon has made many friends during his stay on this coast whose good wishes will accompany him to his new field.

DR. J. W. HUSE has been appointed superintendent of the Hospital Department for the Pacific System of the Southern Pacific Co., with headquarters in San Francisco. The appointment to take effect October 1st, 1888.

Montreal Medical Journal.

The *Canada Medical and Surgical Journal* has assumed the above title. It has been enlarged from sixty-four to eighty pages and is much improved in appearance. The subscription has been reduced to $2.00.

The Medical and Surgical Reporter.

Our esteemed contemporary, the *Medical and Surgical Reporter*, states that a medical journal has appeared at Toledo, Ohio, bearing the same title. Subsequent numbers of the new publication have the words "The Toledo" prefixed to the title, but so printed as to imply that the misappropriation was purposive. This is neither courteous nor honest and cannot fail to injure the publication pursuing this course.

Ice Cream Poisoning at Mountain View.

The following particulars of a case of ice cream poisoning which recently occurred at Mountain View, Santa Clara county, and by which a number of persons were seriously affected, have been furnished by Dr. C. V. Jones of that town. The ice cream freezer was a new one, being used for the first time, and had been constructed by the local tinsmith. It was made of tin, soldered on the inside to avoid cracks or crevices. The maker states that he has made over 100 in this manner and has so far had no complaint. A solution of zinc in muriatic acid is used in the soldering process, but this is readily removed by a thorough washing which the person who made the ice cream states that she gave the apparatus. The party, to the number of twenty, including the woman who made the ice cream, were seized, soon after eating, with vomiting and purging, accompanied by severe griping pains. The vomited matter was noticed to be intensely acid. Under appropriate treatment these symptoms subsided, all the victims recovering within twenty-four hours.

Remarkable Monstrosities.

In the July number of the *Annals of Gynecology* Dr. J. Bechtinger, of Para, Brazil, describes a remarkable abnormity in a female. The subject is 25 years of age, a native of Martinique (French West Indies); her father is a Frenchman, her mother a quadroon. Both are healthy and there is no history of deformity in the family. The girl has a third leg attached to a continuation

of the processus cociggeus of the sacrum. In addition to two well developed mammæ, normally situated, there are also two close together above the pubis. There are two vaginæ with well developed vulvæ. Both vaginæ are properly supplied with nerves and normal sexual connection with correspondingly natural sensations is possible in either vagina. The sexual appetite is very markedly developed. In this connection Dr. G. W. Woods, of the Navy Yard, Mare Island, has called our attention to an almost identical case occurring in the male subject, which appeared in the *Lancet* about twenty years ago, and is there fully described by Mr. Ernest Hart. The subject, a native of Faro, Portugal, was 19 years of age and in good health. There was no family history of malformation. The third leg, which is really a consolidation of two legs, as shown by the foot, is attached to the inferior and posterior part of the arch of the pubis. When walking he straps the limb to the right thigh. He has two complete and well formed penes, placed side by side about an inch from the median line. On the inner side of each is attached a fully developed scrotum and testes. Between them hangs a shrunken scrotum which contained two testes until he was ten years old, when, as he says, they ascended into the abdomen. When the bladder acts it expels its contents through both penes at the same moment. Under excitement both become erect and other functions are performed by the two simultaneously. He describes himself as possessing considerable virile power. He habitually uses the left penis in sexual intercourse.

SOCIETY PROCEEDINGS.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting September 11, 1888.

The President, J. D. ARNOLD, M. D., in the Chair.

New Members.—HENRIETTA BROWN, M. D. was duly elected a member of the Society.

Facial Neuralgia Relieved by Neurotomy.—DR. J. F. MORSE reported a case of facial neuralgia relieved by neurotomy. In 1862, the patient was attacked with tic douloureux after exposure to a severe snow storm in the mountains, and for the relief of this Dr. Bulkley, of New York, performed some operation in the region of the superior maxillary nerve, the nature of which is unknown to the patient. This did not afford him any relief, and after a time the pain became associated with spasmodic contractions of the facial muscles, so that in 1873, he applied to Prof. Jas.

Wood who performed Kernaghan's operation. The patient remained free from pain for eighteen months, but after a severe wetting it recurred and was only kept in subjection by the continuous use of large doses of morphine until 1885, when, by dividing the inferior dental nerve, Dr. Lane relieved him for an other three months. Acting on the recommendation of Dr. Lane, he applied to Dr. Morse, telling him that unless some relief could be given him he certainly would be compelled to commit suicide. Dr. Morse suspected that Wood's operation had failed to divide the posterior dental branches, as there was intense pain in the area of their distribution, and as dissection verified the suspicion these branches were removed, together with the inferior dental; the gustatory and supra-orbital also being divided. The patient has not complained since the operation, but it is too soon to regard the case as cured since the pain may return as on former occasions.

Dr. H. M. Sherman said that Wood practised before the days of Listerism or antisepsis and adopted the custom of leaving wounds open and allowing them to heal by granulation from below. This would account in some measure for the deep cicatrices which his operation had left upon the face of the patient.

Dr. Morse replied that the scars were due to the method of operating and not so much to the healing process. It was to obviate these that Lawson and Brown's method, which he himself had followed in dividing the superior maxillary, had been introduced. He had not any faith in bloodless stretching of nerves for neuralgic affections, but in several instances relief had followed cutting down upon the nerve and stretching it. He did not think that the result was due to stretching of the nerve fibres, but to the setting up of an inflammation which might lead to the absorption of other products.

Congenital Absence of Left Kidney.—Dr. W. W. Kerr reported this case. The patient was admitted to hospital suffering from ascites, the abdomen being enormously distended and the dyspnea very great. No relief was obtained from cathartics, diuretics, sudorifics or any other medicinal agent, indeed the urine always remained scanty, but free from albumin, and consequently the patient was tapped. This permitted percussion which revealed a marked diminution in the area of hepatic dulness. On auscultation a regurgitant murmur could be heard in the mitral area. The diagnosis was mitral incompetence and cirrhosis of the liver. The fluid accumulated so rapidly in the abdominal cavity that paracentesis had to be performed three times in fourteen days to relieve the pain of distension and the dyspnea. *Post-mortem* examination conducted by Dr. Cook showed a well marked cirrhosis of the liver, and shortening of the mitral valves. The strangest feature was the entire absence of the left kidney or any trace of it, while the right was uniformly hypertrophied to nearly twice the normal size. The case was interesting as showing how well one kidney, could under ordinary circumstances, perform the functions generally carried on by two; and also as the discharge of urinary functions by one organ would require a higher blood presure than normal. Such cases would indicate that the cardio-vascular changes in Bright's disease were due to a rise in blood pressure throughout the body, probably caused by action of retained material upon the vaso-motor centres, and not simply to rise in renal pressure.

Dr. T. J. LeTourneux had a case under observation at the present time in which the cavity always refilled within two or three days after tapping, but he could not discover any indications of disease or abnormity beyond the portal obstruction.

Dr. Morse remembered seeing a patient operated upon for hydronephrosis. The operation was followed by total suppression of urine and death; the autopsy showed that the remaining kidney was only rudimentary.

DR. D. W. MONTGOMERY thought that in Bright's disease a general rise in blood pressure was caused by the action of the urinary constituents on the walls of the vessels.

THE PRESIDENT suggested that in cases where one kidney was absent the other might be hypertrophied sufficiently to compensate for the diminished excretory surface caused by the absence of the other organ, and therefore no rise in renal arterial pressure would be necessary for the efficient performance of the work.

Regular Meeting September 25, 1888.

The President, J. D. ARNOLD, M. D., in the Chair.

Sarcoma of the Liver Simulating Gumma.—DR. WM. E. TAYLOR exhibited a specimen of lymphoid cell sarcoma, which he had taken from a patient, who during life had presented all the symptoms of visceral syphilis; this tumor had been very slow in growth, and, to the naked eye, appeared to be a gummatous affection of the liver, but microscopic examination by Dr. Douglass Montgomery showed it to be the form of sarcoma above mentioned. Dr. Taylor in opening the discussion on visceral syphilis, said that he regarded the importance of a more accurate knowledge of this subject as increasing every year, since the tertiary manifestations of syphilis are the most serious of all lesions to internal organs. The disease was not local but general, affecting every tissue in the body, and while the disappearance of a certain group of symptoms led some to believe that the disease tended towards a self-cure, and to regard re-infection as proof that the disease in the first instance had been rooted out, he felt some hesitancy in accepting the accuracy of the diagnosis, especially when he remembered the many diseases it resembled. He doubted extremely if any one ever did fully recover from syphilis, and believed that many of the chronic diseases, which at present are held as distinct from venereal affections, are really syphilitic in their origin.

DR. D. W. MONTGOMERY said that after making sections of the specimen exhibited, he found that the nodules were made up of lymphoid cells, containing a large granular nucleus; they did not stain readily, and around the tumor were capillary blood vessels and extravasated leucocytes, which were smaller than the cells of the tumor and did not possess the granular nucleus. Was the tumor syphilitic? The syphilitic granulomata were in the same category as tubercle, glanders and lupus—*i. e.*, they were all made up of small round cells, like leucocytes, which stain easily; in this case the cells were larger, contained a granular nucleus, and did not take the staining fluid. In some instances, the tumors presented signs of slight fatty degeneration in their centres.

DR. J. ROSENSTIRN believed that it used to be regarded as a differential point between gummata and sarcomata that the former underwent degenerative changes which the latter did not. In view of Dr. Montgomery's last statement, he would be inclined to the first opinion of Dr. Taylor—that the tumors were syphilitic in their origin.

DR. A. ABRAMS said that particular stress had been put upon the fact that the cells did not absorb the staining fluid. Now if the tumor had undergone degeneration, the cells must have contracted, and their vitality being impaired the difficulty in staining could be explained. He noticed lately that some statistics showed 80 per cent. of the cases of aortic aneurism were due to syphilis, and he believed that in such cases the benefit derived from iodide of potash was due to its being a direct antidote to the syphilitic poison.

DR. MONTGOMERY recognized the difficulty of diagnosis. In syphilis, the degenerative changes are very well marked, while in this case they

were very slight when compared with granuloma, and commenced at quite a distance from the periphery. The cells did not resemble these of granuloma and the presence of the blood vessels, also spoke in favor of sarcoma.

THE PRESIDENT said that sometime ago Dr. Taylor called attention to the degenerative changes in the blood vessels which did not readily respond to specific treatment; as the management of these later forms of the disease is very difficult, he thought that some remarks upon this subject would be appropriate.

DR. TAYLOR replied that he had avoided mentioning treatment, as he believed that to be pretty well agreed upon. It used to be taught to give mercury in the first and second stages and iodide in the third, but now he never gave iodide alone in the third stage as he obtained better results from a combination of the two either in the same prescription, or as inunction or both. Of course, the failure of a disease to respond to this treatment did not show that it was not specific, for the tissue degeneration might have proceeded so far as to be beyond the influence of any drug. One great difficulty in the administration of remedies lay in the location of the disease, for if the alimentary system were involved, we would have to contend with the digestion as well as the syphilitic poison. If the emunctories were kept working freely, much better results could be obtained from medication, and it was on this account that so much benefit frequently followed a visit to hot springs.

SPECIAL CORRESPONDENCE.

LONDON.

[FROM OUR OWN CORRESPONDENT.]

Sir Morell Mackenzie's Book..—The Whitechapel Murders.—Scientists and Tight Lacing.—Lightning and Lightning Conductors.—The Introductory Addresses.—The Electricity of the Human Heart.—The Prevention of Puerperal Fever,—Amalgamation of the Parkes Museum of Hygiene and the Sanitary Institute of Great Britain.—Dr. Theodore Williams on Inhalations.—The Illustrated Medical Journal.

As advance sheets of Sir Morell Mackenzie's book are to be sent to New York, the interest which it may excite will be discounted before this can appear, and I shall not attempt to give any account of its probable contents. The book will be published on October 15th, in London and will be illustrated by drawings and reproductions of the late Emperor's handwriting. It is not composed in the form of a direct reply to the German report, but consists of a history of the case, interspersed with reminiscences. The publishers (Messrs. Sampson, Low, Marston & Co.), have arranged for its issue on the same day in Germany, but a persistent rumor, which finds fresh support in Bismarck's threat to prosecute the *Deutsche Rundschau* for publishing the extracts from the late Emperor's diary, has been circulating for some weeks, to the effect that its sale in Germany will be immediately prohibited.

The daily press will also have made you acquainted with the extraordinary charge against an unknown American which was formulated by the coroner in his summing up to the jury which sat to find the cause of death of a woman, named Chapman, who was found murdered in the yard of a tenement house in Whitechapel. Great excitement was caused by the fact that this was the third or fourth unfortunate women—"unfortunate" in more senses than one—who had been found murdered and

multilated in the east end of London within a few months. *Post-mortem* examination revealed that the uterus together with the posterior part of the bladder, the upper part of the vagina, and a piece of the abdominal wall, including the navel, had been removed. It seems probable that the woman was first strangled, then stabbed in the neck, and afterwards mutilated. The subcurator of one of the pathological museums in London had informed the coroner that a few months ago an American had applied to him to obtain a large number of specimens of the uterus, stating, as his reason for wishing so large a number, that he wished to give a specimen with each copy of a book upon which he was engaged. The improbability of the story was increased by the additional statement that this unknown American had expressed himself ready to pay as much as £20 apiece for the organ in question. This outrageously improbable story obtained credence in the daily press for a few days; but before there had been time to disprove it by inquiry, as has now been done, the whole theory was blown to the winds by the perpetration of two other murders in the early morning of Sunday, September 30th. Both women were prostitutes. One was killed by having her throat cut, but was not mutilated; the other was killed in the same way, but, in addition the abdomen had been ripped open, the intestines pulled out and cut in several places—the left kidney and a part of the uterus were missing.

The murders have been the text for a good many sermons from sanitary and social reformers; and, no doubt, they do well to improve the occasion, but their lucubrations appear to me to involve a *non sequitur*. The women were prostitutes, and of a very low class, the murders were committed in slums, and the murderer, or murderers, is evidently either a madman, or a "Fenian;" now prostitutes are not a peculiar product of London. London slums are not nearly as bad as those of New York, Vienna or Berlin. Your Fenians are imported from the United States and maniacs are of all countries. True, the slums of London are a blot on our civilization, and recent revelations of the manner in which the municipal affairs of London, of Paris, and of New York have been conducted by a gang of "Councillors," "Managers," or "Aldermen" makes some of us parody Bret Harte: "Is modern civilization a failure, and is democracy played out."

The Professor of Pathology, at the University of Cambridge, Dr. C. S. Roy, and his demonstrator, Mr. G. Adams, made a good many of the old fashioned frequenters of the meetings of the British Association rub their eyes and misdoubt the evidences of their ears the other day in the Biological section of the Bath meetings when they appeared as champions of tight lacing. Moderate pressure on the abdomen, they said tended to assist the emptying of the abdominal veins, and experiment showed that the amount of blood expelled by the heart at each stroke was greater, and that consequently the blood supply of the brain and spinal cord the muscles and skin was increased. This increased supply, they said, was useful when violent muscular exertions were being made; consequently tight lacing in women and tight waistbands in men were useful. In the future, we are not only to admire the slim waist of our fair partner at dinner or rout, as fashionably beautiful, but to look upon it as having a higher significance and to remember that the greater amount of blood which it diverts to the brain, is responsible for the brilliant talk and ready wit—when these exist. If they do not exist we must try and see them. Dr. Garson, the anthropologist, in a passage of the report on the anthropometric laboratory held at the Manchester meeting last year, uttered a counterblast. The persons examined in the laboratory were ladies and gentlemen who attended the 1887 meeting, and a most remarkable difference was discovered between the males and females in their vital capacity. In males, it was 63 c.c. per inch of stature in the decade 20–30, 55 c.c. in the decade 30–40, 53 c.c. in the decade 40–50, and 49 c.c. in the decade 50–60.

In men, therefore, the vital capacity steadily declines with age, at first rapidly, afterwards more slowly. In females, the vital capacity was 40 c.c. per inch of stature in the decade 20—30; 35 c.c. in the decade 30—40; 36 c.c. in the decade 40—50, and 37 c.c. in the decade 50—60. In women, therefore, the vital capacity is always much below the male standard, but declines much less rapidly after the first decade, and even slightly increases between 40 and 60. Dr. Garson thinks that this difference is due to the use of stays or "corsets." In early womenhood, the stays diminish the vital capacity, and in the second decade (30—40), when so many ladies tend to grow stout they have to lace still more tightly to keep their figure, and the vital capacity falls still more. In later years, when they begin to care less about their "figures," (as a rule) the stay laces are relaxed, and the increased play thus allowed to the lungs more than compensates for the diminution which age tends to produce.

There was another discussion at the British Association meeting of a good deal of practical interest, to which I may refer: This was on Lightning and Lightning Conductors It was opened by Mr. Preece, F. R. S., Electrician to the Postal Telegraph Department, who vehemently attacked the conclusions arrived at by Professor Oliver J. Lodge, as the result of laboratory experiments. Mr. Preece said that Professor Lodge had made an initial mistake in assuming that the conductor was struck by the flash, on the contrary, the conductor carried off the electricity, and if properly constructed, prevented a flash; Professor Lodge replied that even good conducting rods were occasionally struck and melted. Sir William Thomson said that the safest place in a thunderstorm was a sheet-iron house, and that the best place to store gunpowder was a house without a lightning conductor, but with an iron exterior. Professor Lodge pointed out, however, that such a building must be very carefully put together, for the smallest gap might give off a spark. Mr. G. J. Symons, who has an immense practical experience as a Meteorologist, gave it as the result of the investigation of every accident by lightning of which he could hear, that houses protected by conductors erected in strict accordance with the rules laid down in the *Report of the Lightning Rod Conference*, 1882, were absolutely safe. Mr. Preece, in his reply, said that the rules could be strictly obeyed at a cost of £100, and recommended a stranded iron wire a quarter of an inch in diameter, with finial points. The President, Professor Fitzgerald, of Dublin, in summing up the discussion, said that there could be very little doubt but that the presence of a considerable number of conductors afforded a great deal of protection to the area in which they existed. M. DeFonvielle earlier in the discussion, had instanced Paris as a city practically free from lightning calamities, owing to the multiplicity of conductors, which permitted the electricity to dribble away slowly and harmlessly. He suggested, however, that the Eiffel Tower, which was to be constructed entirely of iron, and was to reach a height of 1,000 feet, would form an immense lightning conductor, and might afford some curious results to science. Professor Fitzgerald said that it was desirable that an inhabited country should contain a very large number of conductors to carry off the electricity innocuously and prevent flashes; he expressed the comfortable opinion that though there might be room for improvement in the conductors in use, they had on the whole been right

The medical schools have opened this week throughout England, and a good many of the usual introductory addresses have been delivered. Two of the orators, however, broke through the custom of talking in a fatherly way to the students about our "noble profession," and so on. Dr. Waller, the lecturer on physiology at St. Mary's Hospital Medical School, and son of the Dr. Waller whose name has been perpetuated in the term Wallerian degeneration of nerves, gave an account of some very curious observations on the electricity of the human heart. He showed

that the heart is an electrical organ, and as such influences the whole body. When the heart contracts the fall of electrical level, to use his phraseology, begins at the apex, and extends to the base, and as it is pretty well ascertained that the active phase of muscle or other living tissue is marked by a fall of electrical level, it follows that the cardiac contraction begins at the apex.

Dr. Cullingworth's address at St. Thomas' Hospital was on the Prevention of Puerperal Fever. It was a carefully prepared plea for the routine use of antiseptics. The students in the maternity department at St. Thomas' Hospital, are instructed to use corrosive sublimate solution, 1 : 1,000. The powder used for preparing the solution is:

℞—Hydrargyri Perchloridi, - - gr. X
Acidi Tartarici, - - - gr. L
Cocci, - - - - - gr. i

The tartaric acid increases the bulk of the powder, which is an advantage, and also lessens the risk of a portion of the mercury salt being lost by being precipitated as an albuminate, or by the alkalinity of a hard water; the cochineal is added to prevent mistakes as to the nature of the solution once it is made. The lubricant used is a solution of corrosive sublimate in glycerine, 1 : 1,000. The hands are directed to be washed with soap, warm water and a vigorous use of the nail brush, and then rinsed and scrubbed with corrosive sublimate solution; he does not recommend vaginal douches of corrosive sublimate as a routine practice, but insists that one ought to be thoroughly given, if an examination has been made by any person without antiseptic precautions, care being taken to avoid leaving any of the solution in the passages, lest the patient be mercurialized For ordinary douching he would apparently prefer permanganate of potash.

The amalgamation of the Parkes Museum of Hygiene, in London, and the Sanitary Institute of Great Britain, which has long occupied the attention of prominent sanitarians in this country, is now an accomplished fact. The first meeting of the council of the new body, formed out of the two Institutions, was held on October 5th.

Dr. Theodore Williams' paper at the British Medical Association meeting at Glasgow, on inhalations deserves to be carefully studied. He has, I know, given great attention to the subject, and always follows up his cases with great care and industry. He has found antiseptic inhalations useless *quâ* antiseptic action. Carbolic acid has sometimes a useful effect by its anesthetic action, but any means which dulls the sensibility of the mucous membrane ought to be used with great care; there are greater dangers in bronchitis, especially of old persons, than a considerable cough and expectoration. Most of the drugs used either had no effect or acted better given by the stomach. Turpentine may possibly be an exception; at any rate it is readily absorbed and quickly appears in the urine. In the treatment of hemoptysis and chronic bronchitis there are few drugs which equal turpentine. In hemoptysis inhalations, are good (℥ss) repeated frequently. In the subacute exacerbations of chronic bronchitis turpentine often works wonders, especially if preceeded by nauseating doses of ipecac. This is old fashioned pharmacy, but I find that a great many, like myself, after trying all sorts of new fangled dodges and drugs, fall back on the old plan.

A new journal has been started in London, *The Illustrated Medical Journal*. It is to give a colored lithograph weekly, and copious illustrations are promised in the text. The first two numbers are moderately good; if it does not improve it will probably collapse, unless the real proprietors are prepared to sink a lot of money to get an advertising medium. The editor is, I believe, Dr. Arthur John Harries, a skin specialist.

LONDON, October 1st, 1888.

CORRESPONDENCE.

The Operation of the Medical Law—A Narrative.

Among laws enacted for the protection of the people against fraud and imposture, is "An Act to Regulate the Practice of Medicine and Surgery." Such laws are not self-operating; some one has to take the initiative, and as most gentlemen dislike to act as "informers," many a rascal escapes just punishment—which would not be if the regular profession put in prompt aggressive work.

There is one little village in a bay county which, doubtless, the quacks will shun, warned by the experience of two of the fraternity. There is a quiet, unpretentious medical man there, who seems to be satisfying the wants of the people. He filled his own prescriptions from supplies furnished by a general store. One day a new man showed himself, said he purposed remaining to open a drug store, and bluntly told the local medico that if he would send all his prescriptions and otherwise aid in building up the same, the new man would confine himself to the dispensing of drugs; but if the other did not comply with this demand he would *practise*, as he, too, was a doctor in medicine. The old doctor expressed himself as not favorably struck with the spirit in which this *ultimatum* was presented. In response to queries as to credentials and the like, the new man claimed to be a "Fellow of the Royal College of Surgeons, England;" that he attained his degree seven or eight years ago; had been in practice in California several years, down in Boom-land, and on the State Register as such. Whereupon it was suggested that if his statements were all true, he was the peer of the best, free to start in anywhere, without trying to make terms with an obscure country doctor—the latter declining all entangling alliances on so short an acquaintance. A little detective work soon showed the "fellow" to be an arrant fraud. A layman swore out a warrant, which was defective, when the old doctor took the matter in hand and the "fellow" was soon in jail; remained there some time, was bailed out by compassionate strangers, but never returned to his old haunts, and afterwards suicided or accidentally took a fatal dose of his favored "dope," dying a wretched outcast before his case came to trial.

In the village was another of the same ilk, who boasted of the medical universities he had attended, of his big practice in the village as well as in San Francisco, where he said he also filled a professorship in the college of "physicians and surgeons." Well, about the time the first "fellow" passed away the Grand Jury found a bill of indictment against the other, wherein it was charged generally that he was engaged in the practice of medicine, yet there was one particular instance cited, and when placed on trial the presiding judge ruled out all evidence tending to show that the man "professed publicly to be a physician, that he habitually prescribed for the sick, and appended M. D. to his name," and confined everything to the naked proposition that on a given day the defendant did, as a practising physician, attend the child of one B. Thus restricted and the principal witness to that one transaction, who swore straight enough before the Grand Jury, wandered away from the facts on the final trial—said the quack had not been called in as a practising physician, only as a friend and neighbor; and the defendant in his own behalf swore that he was not a practising physician, never professed to be, never practised beyond rendering gratuitous services in cases of emergency and that he was a druggist and owned an interest in a San Francisco drug store. With such evidence, rulings and instructions of the court, the jury felt compelled to bring in a Scotch verdict "not proven." But a case was soon made up, to rest on reliable witnesses; the prisoner plead with the arresting officer

that he had pressing business in San Francisco; that his interests would seriously suffer if not attended to at once, begging the officer to accompany him over there, or accept his parole of honor and pledge to report himself to the officer the following day, on which latter proposition the credulous "cop" let him go, and the quack forgot to return—some of his friends say he is gone east and is studying for a degree. Possibly he may buy a sheep skin from some "diploma mill" to be utilized in some new field.

LEX.

Oil of Cashew in Leprosy.—A Letter to Father Damien.

*** The following letter, for which we are indebted to Dr. A. W. Saxe, of Santa Clara, will, we think, prove of general interest. Mr. R. W. Meyer, the Superintendent of the Leper Settlement, writes that Father Damien, having used the oil for seven weeks, finds that the tubercles are disappearing; but adds, "I doubt whether the treatment will cure the disease:"

HODSON STREET, AUCKLAND.
New Zealand, June 14th, 1888.

Dear and Reverend Father:

* * * * * * * * * * *

I deeply reproach myself that I have not sent to you before the remedy which you may perhaps have heard of, which was discovered by the late Dr. Beauperthay, of Cumana in Venezuela. You will find a full account of the remedy and mode of treatment in the accompanying pamphlet, which I send you by favor of the doctor of the mail steamer, together with a small bottle of the Oil of Cashew Nut. Perhaps you have the Cashew in the Sandwich Islands, but if not you will find the specimen I sent has retained its properties. I would strongly recommend you to try it. It cannot do any harm if tried on a small surface, and you will soon experience its effects. If your disease is of the tubercular species, you can paint any of the tubercles and a portion of skin surrounding them, with a little of the oil, *rubbing it well into the skin.* In a few days you will find an exudation, which will dry up into a scab. This must be allowed to fall off by itself, and a second and third application made, until the skin becomes soft and resumes its sensibility. If you are suffering from the *anesthetic* form of the disease, try the oil first on the arm at the spot where the numbness commences, and work downwards towards the fingers. In both forms, the use of the galvanic battery for one-fourth of an hour two or three times a day is very advantageous. You will find pretty full directions in the pamphlet, which is an official copy of my report and correspondence, presented to both houses of the British Parliament by command of Her Majesty, Queen Victoria. * * *

I am satisfied that cases in their early stages can be cured; I have cured several myself. * * *

I am, dear and reverend father, yours most faithfully,

R. H. BAKEWELL, M. D.

[The nut is contained in an edible fruit produced by the *Anacardium Occidentale*, a tree twelve feet in height, native of India. Natural order, *Terebintaceæ*. Fruit, pleasant sub-acid flavor, slightly astringent. Nut near the size of an almond. Has two shells; the outer smooth, ash color, the inner thin and soft. Between the outer and inner shells there is an exceedingly caustic inflammable oil. This oil has long been used as an external application to ring-worm, cancerous sores, corns, etc., but should be used with caution.—*From London's Encyclopedia of Plants.* A. W. S.]

PUBLIC HEALTH.

By W. R. Cluness, M. A., M. D., Sacramento, Cal.

Mortality.—The deaths registered in 67 town districts of the State during the past month, in a population of 707,700 correspouds to an annual rate of 14.98, the total mortality having been 884. 162 deaths were due to zymotic diseases, giving an annual rate of 2.73 a thousand. Of these 43 were due to typhoid fever, 4 to typho-malarial fever, 17 to remittent fever, 34 to diphtheria, 14 to diarrhea and dysentery, 30 to cholera infantum, 7 to cerebro-spinal fever, 6 to whooping cough, 4 to scarlet fever and 2 to small-pox. 173 deaths were attributed to diseases of the respiratory organs, giving an annual rate of 2.93 a thousand. Of these 117 were due to consumption, 37 to pneumonia, 5 to congestion of the lungs and 14 to acute bronchitis. The average annual death rate from all causes, occurring in the ten largest cities and towns in the State, and representing a population of 542,000, was 14.77. The highest death rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco, it having been 16.82; the lowest was reported from San Diego, the rate having been but 8 a thousand. A comparison of the above summary, considered separately or taken in conjunction with the mortuary report of the previous month, indicates the remarkable healthfulness of the State for the two past months, as compared with the same months of preceding years in which a record has been kept. It also illustrates forcibly the healthfulness of our State as compared with any other in the Union. There is no epidemic prevailing, nor is there in any section an unusual or excessive prevalence of any form of disease. Small-pox still lingers in San Francisco in a mild form and to a very limited extent. One case each was imported thence into Sacramento, Stockton, Livermore and Elk Grove. As this disease manifests a tendency to spread during cool and damp weather, medical men should impress upon their patrons and the general public the necessity of vaccinating and re-vaccinating all persons who have not had this operation performed for the past four or five years.

Yellow Fever.—Yellow fever, which it was believed might obtain entrance into our State because of the rapid interchange of railroad communication with Florida, and the similarity in many respects of the two climates, has fortunately not approached us any nearer than the State in which it originated, nor are there longer any probabilities that it will, at least during this season. Nevertheless, the State Board of Health, with the concurrence of the Governor, has placed an expert upon the frontier to watch its progress and to adopt whatever means may be deemed necessary to prevent it from gaining admission.

METEOROLOGY.

By J. W. Robertson, B. A., M. D., Assistant Physician to the State Asylum for Insane, Napa, Cal.

Temperature.—As is usual during the month of September, extremely warm weather characterized the valley belt. Red Bluff in the north registered over 106° while 111° was noted at Fresno. The highest mean was 81°, with an average minimum or night temperature of 66° In Southern California and in the modified coast belt, the heat was very moderate, the mean temperature ranging from 68° at Los Angeles to 62° at Oakland. Along the coast the temperature was still more bracing, averaging 59° at San Francisco and 56° at Eureka.

Rainfall.—From the 11th to the 15th there were local showers in nearly all portions of the State, the heaviest rainfall being noted in the Sacramento Valley and that portion of Central California adjacent to the bay of San Francisco.

California—Tabular Statement for September, 1888.

STATIONS.	Temperature. Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	Rainfall. No. of Days Rain Fell	Total Rainfall	Mean Relative Humidity	Weather. No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Wind. Prevailing Direction.	Furnished by—
Auburn.....Cal.	76.9	103.0	54.0	.....	.....	.....	.....	?	.....	.....	.....	.....	?	Southern Pacific Co.
Colfax..... "	73.7	102.0	55.0	.....	.....	.....	.....	0.25	.....	.....	.....	.....	N.	" " "
Eureka..... "	56.5	73.0	46.5	63.8	50.9	12.9	3	0.06	90.2	14	7	9	N.	Signal Service U.S.A.
Fresno..... "	80.3	110.9	54.5	97.6	63.8	33.8	1	0.06	49.0	23	6	1	NW.	" " "
Keeler..... "	78.2	96.1	58.7	89.9	66.7	23.2	2	0.06	32.0	18	10	2	SE. & S.	" " "
Los Angeles.... "	68.4	98.2	55.0	86.6	61.0	25.6	0	0.03	77.7	21	7	2	W.	" " "
Monterey ..... "	62.5	74.0	54.0	.....	.....	.....	.....	0.65	.....	.....	.....	.....	SE.	Southern Pacific Co.
Napa..... "	65.1	90.0	49.0	75.6	54.5	21.1	2	1.08	.....	20	4	6	S.	Sta. Napa Ins. Asylum
Oakland..... "	62.5	74.0	54.0	.....	.....	12.3	3	0.92	86.5	18	7	5	W.	J. B. Trembley, M.D.
Paso Robles.... "	71.0	104.0	50.0	... .		.....	.....	0.01	.....	.. ..	.....	.....	W.	Southern Pacific Co.
Red Bluff..... "	81.2	106.5	55.2	93.7	66.7	27.0	2	0.33	35 3	24	5	1	N.	Signal Service U.S.A.
Sacramento. ... "	73.7	106.0	50.5	91.4	59.5	31.9	2	0.55	56.2	24	3	3	S.	" " "
San Diego..... "	68.2	82.0	58.4	74.8	64.6	10.2	1	0.04	88.6	16	3	11	NW.	" " "
San Francisco.. "	59.0	87.7	50.1	70.5	54.8	15.7	2	0.98	83.5	10	16	4	W.	" " "
Santa Barbara.. "	67.9	88.5	53.0	77.2	58.2	19.0	2	0.03	75 6	28	1	1	E. & W.	Hugh D. Vail.
Santa Cruz ... "	65.8	82.0	56.0	.....	.....	.....	.....	0.37	.....	.....	.....	.....	S.	Southern Pacific Co.
Yuma.....A. T.	81.2	110.6	66.6	104.2	74.2	.....	1	0.01	47.5	24	6	0	NE.	Signal Service U.S.A.

Blank (.....) indicates data missing.

Clear Day—One on which cloudiness is 3 or less on a scale of 10. Fair Day—One on which cloudiness is from 3 to 7.
Cloudy Day—One on which cloudiness is over 7.

REVIEWS AND NOTICES.

DISEASES OF THE TUBES, LIGAMENTS, PELVIC PERITONEUM AND PELVIC CELLULAR TISSUES; EXTRA-UTERINE PREGNANCY. By L. Bandl, M. D., Professor of Obstetrics and Gynecology, at the University of Prague; and DISEASES OF THE EXTERNAL FEMALE GENITAL ORGANS; LACERATIONS OF THE PERINEUM. By P. Zweifel, M. D., Professor of Obstetrics and Gynecology at the University of Erlangen. edited by Egbert H. Grandin, M. D., Obstetric Surgeon to the New York Maternity Hospital, etc. Cyclopedia of Obstetrics and Gynecology. New York: William Wood & Co.,

The tubes have recently been the theatre of so many brilliant surgical exploits and controversies that they are invested with new interest as well as new importance. Extra-uterine pregnancy has been in the hottest of the fray, which, let us hope, will leave the field with the rightful claimant. The remarkable results of electrical treatment of this condition compel us to dissent from the opinion of the author, that "for these cases the best and most rational operation is laparotomy and treatment of the sac, according to the rules of ovariotomy and myomotomy. The value of electricity is rather enhanced than depreciated by the assertion made elsewhere that diagnosis is impossible before rupture For if so, electricity, on account of its comparative harmlessness, is preferable both to exploratory incision and to laparatomy. If the tubes assert a new importance in gynecic pathology, the pelvic cellular tissue has suffered a complementary decadence; and as we gaze into the gynecological kaleidoscope we grow dizzy and wonder if it will ever reach a condition of complete equilibration. This volume completes the Cyclopedia of Obstetrics and Gynecology, which we close with regret, hoping that the medical public will derive as much pleasure and profit from its pages as we have done.

THE DISORDERS OF MENSTRUATION. By Edward Jenks, M. D., Professor of Gynecology in the Michigan College of Medicine, Etc.—Physician's Leisure Library. Detroit: Geo. S. Davis. Paper 25 cents; cloth 50.

The author of this booklet is unquestionably a physician of experience and ability. He strikes a responsive chord in many a professional breast when, in speaking of endometrial fungosities. He says: "The physician should never promise that a single curetting of the uterine cavity, no matter how thoroughly done, will result in cure." Further on he says that he "does not agree with some of his contemporaries who charge intellectual work with being the cause of most of the disorders of the generative organs, of young women in particular." If the physical break-down of modern women be due to intellectual overwork, heaven help the race. With the author let us look for other causes and we shall find them. The book is practical throughout and, although small, might have been made considerably smaller if the author had but had the time. "Nor is it to be considered of small consequence," said Milton, "what language, pure or corrupt, a people has, or what is their customary degree of propriety in speaking it." After reading, in regard to the congested ovary: "If it can be grasped between the ends of the examining fingers, the pain produced by this pressure will be observed by the expression on the patient's face, and by other signs, to be that she is suffering exquisite;" one feels with Milton, that it were well to fortify the habit of speaking and writing received from a good age of the nation with a kind of wall, the daring to overleap which will let a law only short of that of Romulus be used to prevent.

STERILITY: DEVELOPMENTAL ANOMALIES OF THE UTERUS. By P. Müller, M. D., Professor of Obstetrics and Gynecology at the University of Berne, and THE MENOPAUSE. By E. Börner, M. D. Professor of Obstetrics and Gynecology at the University of Graz.—Cyclopedia of Obstetrics and Gynecology. New York: Wm. Wood & Co.

A critical exposition of the contents of this volume would form a book of itself. The student, however, will look in vain for that "creative memory" which is ascribed to the teutonic mind by a distinguished laparotomist whose knowledge of German has survived no less than twenty years of complacent desuetude, and by so much outlived its usefulness. Common sense and profound knowledge have here the same dominance as in the best English medical literature. It is praise enough to say that this volume is up to the standard of its companions in the series.

EARTH AS A TOPICAL APPLICATION IN SURGERY. By Addinel Hewson, M. D. [Second Edition]. 8 vo., pp, 309. Illustrated. Philadelphia: The Medical Register Co.

The method of treating wounds with dry earth, preferably clay, as set forth in this volume, is not of recent origin. During the past three centuries this plan has been adopted by one and another operator, and as frequently abandoned. About one-half of Dr. Hewson's work is devoted to a report of cases comprising a large variety. A hasty perusal of these reports impresses us with the fact that the results are by no means flattering, when compared with similar cases, treated according to the rules of modern antiseptic surgery. Here and there is noted a death from pyemia. In a large number, suppuration in what seemingly ought to have been healthy wounds is openly confessed. The period of treatment to which many patients were subjected seems unnecessarily long. In a word, there appears to be nothing in the author's argument or his records that commends the method in the advocacy of which he has spent much time and conscientious effort. The ends attained by the use of simpler, safer, more cleanly and sensible materials are too highly appreciated by the profession to admit of further experimentation in this direction.

ABDOMINAL SURGERY. By Hal. C. Wyman, M. S., M. D., Professor of Surgery and Operative Surgery, Michigan College of Medicine and Surgery, Surgeon Detroit Emergency Hospital, etc. Physician's Leisure Library series. Detroit: George S. Davis. Paper 25 cents; cloth 50.

The intention of the author of this little handbook, to outline briefly the various conditions leading up to laparotomy and to describe the several steps essential to success therein, has been faithfully carried out. While the practised and skillful laparotomist will find in the volume little that partakes of originality, he will certainly find much to commend. On the other hand, for the inexperienced a work containing a review of the opinions and methods of most of the authorities eminent in this department of surgery, must prove invaluable. Of especial interest are the author's experimental researches upon dogs and other animals, as showing the nature of lesions produced by direct violence externally, and by penetrating wounds. The illustrations representing the different varieties of intestinal sutures are clear and comprehensible. The work is worthy of high commendation.

BOOKS AND PAMPHLETS RECEIVED.

A Eulogy upon Cornelius Rea Agnew, read before the New York Academy of Medicine. By T. Gaillard Thomas, M. D.

The Modern Treatment of Diseases of the Liver. By Prof. Dujardin-Beaumetz, Member of the Academy of Medicine and of the Council of Hygiene and Salubrity of the Seine. Translated from the Fifth French edition by S. P. Hurd, M. D. Physician's Leisure Library. Detroit: Geo. S. Davis. Paper, 25 cents; cloth, 50 cents.

Six cas de Périnéorrhaphie opérés par le procedé de Lawson Tait. Par le Docteur F. Fraipont, Assistant à l'Université de Liege.

Register of the University of California, 1887-88, Berkeley. Published by the Regents of the University.

A Text Book of Human Physiology. By Austin Flint, M. D., L. L. D., Prof. of Physiology and Physiological Anatomy in Bellevue Hospital Medical College, New York, Visiting Physician to Bellevue Hospital, etc. With three hundred and sixteen figures in the text and two plates. Fourth edition; entirely rewritten. Cloth, $6; sheep, $7. New York: D. Appleton & Co.

The Theory and Practice of the Ophthalmoscope. A Handbook for Students. By John Herbert Claiborne, Jr., M. D., Instructor in Ophthalmology in the New York Polyclinic, Clinical Assistant in the Vanderbilt Clinic, (Department of Ophthalmology) etc. Physician's Leisure Library. Detroit: George S. Davis. Paper, 25 cents; cloth, 50 cents.

The Ear and Its Diseases. Being practical contributions to the study of Otology. By Samuel Sexton, M. D., Aural Surgeon to the New York Eye and Ear Infirmary, Fellow of the American Otological Society, etc. Edited by Christopher J. Colles, M. D., Assistant Aural Surgeon New York Eye and Ear Infirmary. New York: Wm. Wood & Co.

A Manual of the Minor Gynecological Operations and Appliances. By J. Halliday Croom, M. D., F. R. C. P. E., F. R. C. S. E. First American, from the second English edition. Revised and enlarged. Edited by Dr. L. S. McMurty. Philadelphia: Records, McMullin & Co. Cloth, $1.50.

Lesions of the Vagina and Pelvic Floor; with special reference to Uterine and Vaginal Prolapsus. With seventy-eight illustrations. By B. E. Hadra, M. D. Philadelphia: Records, McMullin & Co. Cloth, $1.75.

Practical Electro-Therapeutics By Wm. F. Hutchinson, M. D. Philadelphia: Records, McMullin & Co. Cloth, $1.50.

What To Do In Cases of Poisoning. By Dr. William Murrell. Second American from the fifth English edition. Edited by Frank Woodbury, M. D., Professor of Therapeutics and Materia Medica in the Medico-Chirurgical College of Philadelphia. Philadelphia: Records, McMullin & Co. Price, $1.00.

A Handbook of Historical and Geographical Phthisiology; with special reference to the distribution of consumption in the United States. Compiled and arranged by George A. Evans, M. D., Member of the Medical Society of the County of Kings, New York, Member of the American Medical Association, etc. New York: D. Appleton & Co.

Report of the Murdock Free Surgical Hospital for Women, for the year ending July 1, 1888. Boston: Rockwell & Churchill.

The Domain of Climatology and Demography as Dependencies of Medicine. Opening address before the Section on Medical Climatology and Demography of the Ninth International Medical Congress. By the President of the Section, Albert L. Gihon, M. A., M. D., Medical Director, United States Navy.

REPORTS AND ANALYSES AND NEW INVENTIONS.

The Double Cylinder Law Battery.

The Law Telephone Company have recently made the following important improvements in their battery. The negative element is now in the form of a double cylinder (see adv., p. xviii) giving a larger surface and quantity and therefore enabling the battery to stand hard work. The elements are now secured beneath the cover by bolts instead of passing through it as heretofore. The jar has been lengthened one inch, increasing the surface and also the quantity of solution. For several months we have had in daily use a Law Battery of 60 cells. Since its first setting-up it has not required a moment's attention. We have found the current steady, reliable and of ample strength. The cell is neat, clean and efficient and its contents do not spill, evaporate, "creep," or give off deleterious and offensive gases.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At the regular meeting of the Board of Examiners, held Oct. 3, 1888, the following physicians were granted certificates to practise medicine and surgery in this State:

Dan. Putnam Albee, Blocksburg; Coll. of Phys. and Surgs., N. Y. May 10, '88.

Henry Arnott. Los Angeles; Univ. of Toronto, Canada, June 8, '70, and Coll. of Phys. and Surgs., Ontario. Canada, Apr. 20, '70.

Chas. P. Bagg, Los Angeles; M. Coll. of the Univ. of Southern California, Apr. 11, '88.

Will. C. Brumfield, San Diego; St. Louis M. Coll., Mo., Mar. 7, '77.

Felix A. Callahan, Grafton; M. Dep. Univ. of Oregon, Apr. 2, '88.

S. E. Capper, Santa Paula; Louisville M. Coll., Louisville, Ky., Feb. 25, '80.

Edw. F. Cunningham, Camptonville; Beaumont Hos. M. Coll., Mo., Mar. 15, '88.

Bernard Daly, Lakeview, Oregon; M. Dep. Univ. of Louisville, Ky., Mar. 1, '87.

John R. Dorroh, Sheep Ranch; Miami M. Coll., Ohio, Mar. 5, '84.

Thos. A. Fairbairn, San Diego; Bellevue Hos. M. Coll., N. Y., Mar. 1, '67.

Sarah Van Tuyl B. Fleming, Coronado; Coll. of Med. and Surg. of Syracuse Univ., N. Y., Feb. 23, '73.

John Michael Fuchs, San Francisco; Philadelphia Coll. of M. Phil., Penn., July 7, '55.

Dennis S. Green, Pasadena; Jefferson M. Coll., Penn., Apr. 2, '85.

Fortunato Hernandez, San Francisco; M. School of the city of Mexico, Aug. 3, '86

Hester Ann Herrlings, Los Angeles; Woman's M. Coll. of Pennsylvania, Mar. 15, '83.

Walter B. Hill, San Jose; Jefferson M. Coll. of Philadelphia, Penn., Mar. 10, '84.

Antoinette Wright Hinton, San Francisco; Women's M. Coll. of New York Infirmary, N. Y., May 29, '85.

Siegmund Knopf, Los Angeles; Bellevue Hos. M. Coll., N. Y., Mar. 12, '88.

Martin Kroloszyner, San Francisco; Univ. of Leipzig, Germany, Aug. 12, '87.

John M. Maclean, Riverside; M. Dep. Univ. City of New York, Mar 11, '84, and King and Queen's Coll. Phys., Ireland, July 14, '85.
George D. Marvin, San Jose; Detroit Coll. of Medicine, Mich., Mar. 23, '86.
Chas. Larkin McCracken, Oakland; Univ. of Toronto, Canada, June 8, '81.
Samuel B. Miller, Modesto: Rush M. Coll., Ill., Feb. 26, '78.
Charles P. Murray, Lamanda Park; Coll. of Phys. and Surgs., N. Y., Feb. 28, '79.
Johannes P. Nannings, Livermore; M. Dep. Univ. of Leiden, Holland, June 23, '88.
William J. Perry, Perris; Kentucky School of M., Ky., June 30, '85.
Henry C. Rankin, Monrovia; Bellevue Hos. M. Coll., N. Y., Mar. 14,'87, and Ohio M. Coll., Ohio, Mar. 10, '86.
John B. Stone, San Diego; M. Coll. of Ohio, Feb. 28, '77.
Charles Toole, Valley Springs; Coll. of Phys. and Surgs. of Baltimore, Md., Mar. 25, '86.
Richard G. Tyner, Forest City; Royal Coll. of Surgs., Ireland, Apr. 28, '77, and King and Queen's Coll. of Phys., Ireland, July 11, '77.

Twelve incompleted applications were laid over and the Secretary was instructed to notify the applicants to complete the same without delay, or show sufficient cause for further continuance. A communication was received from G. Beaumont, of San Diego, stating that the unprofessional advertisements complained of had been withdrawn. Communications were received from Los Angeles, Modesto, Sacramento and Woodland on the subject of prosecutions. Edward Davison, of Woodland, was arrested for practising without a license. His case will be ably and earnestly prosecuted by the indefatigable District Attorney, F. S. Sprague, to whose intelligence and industry was due the successful prosecution of A. O'Leary last year.

It will be remembered that the Supreme Court rendered its first decision in that case in favor of defendant; but upon petition by Mr. Sprague, sanctioned by the Attorney-General, the case was re-opened, and finally decided in favor of the people. The Secretary presented the decision of the Supreme Court in the case of the People vs. P. Roscoe McNulty, who was convicted in the Police Court, and again in the Superior Court, and carried on habeas corpus to the Supreme Court. By an ingenious method of reasoning the Court arrived at the conclusion that the law provides a penalty only for those who practise medicine without *first* having procured a certificate from one of the Boards of Examiners. They failed to find any law to convict one of practising without a certificate after the same has been revoked. It will be remembered that McNulty's certificate was revoked on the charge of unprofessional conduct. This decision was concurred in by four members of the Court, of whom Justice Sharpstein was the feed attorney of illegal practitioners before he was exalted to the position of Supreme Justice, chiefly through the influence of the Kearney element of society. Chief Justice Searles dissented. Justice Temple was absent from illness, and Justice McKinstry, on the eve of his resignation declined to participate.

This decision demonstrates the necessity of the Boards exercising greater care in granting certificates where there is any quesion of professional conduct. It also demonstrates the necessity of passing the new bill recently adopted by our State Society. We again call upon the profession throughout the State to aid the Board in its efforts to enforce the law. Look after your would-be representatives, and the officers in the coming election. Make it a professional matter, rather than a political one. Let us support those who support us. The profession is more than two thousand strong in this State, and may hold the balance of power.

Chas. E. Blake offered his resignation as President of the Board which was accepted, and Chas. H. Steele was elected to fill the vacancy.

R. H. Plummer then called up his resignation as Secretary presented at the September meeting, which was read and accepted, and Chas. E. Blake was elected to fill the vacancy, with office at 431 Geary Street.

R. H. PLUMMER, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from Sept. 16th to Oct. 16th, 1888.

By direction of the President the Army Retiring Board at San Francisco, Cal., convened by War Department Order, dated July 20, 1886, published in S. O. No. 168, July 22, 1886, from headquarters of the army, is dissolved. Par. 1, S. O. 217, A. G. O., September 18, 1888.

Captain Robert J. Gibson, Assistant Surgeon, is relieved from duty at Alcatraz Island, Cal., and will report in person to the president of the Army Medical Examining Board, New York City, on Oct. 16, 1888, for examination for promotion. On completion of his examination, Captain Gibson will proceed to Fort Trumbull, Conn., and report for duty to the commanding officer of that post. Par. 13, S. O. 217, A. G. O., September 18, 1888.

1st Lieutenant Edward R. Morris, Assistant Surgeon, is relieved from duty at Fort Thomas, Arizona, and will report in person to the commanding officer Fort Shaw, Montana, for duty at that post. Par. 14, S. O. 217, A. G. O., September 18, 1888.

Colonel Elisha I. Bailey, Surgeon, Medical Director of the Department, will proceed to Angel Island and the Presidio of San Franciso, Cal., to examine the sick in the hospitals at those posts who have arrived from the Battalion of the 1st Infantry lately encamped at Santa Barbara, Cal. S. O. 93, Depart. of Cal., September 19, 1888.

Captain John J. Cochran, Assistant Surgeon, will proceed at once to Paso de Robles, Cal., and carry out the instructions he has received from the Department Commander; on the completion of which he will return to these Headquarters. S. O. 24, Depart. of Cal., September, 21, 1888.

Assistant Surgeon M. M. Walker, U. S. Army, will proceed to Alcatraz Island, Cal., and report to the commanding officer for temporary duty as post surgeon, relieving Captain Robert J. Gibson, Assistant Surgeon. S. O. 66, Depart. of Cal., September 26, 1888.

Captain William H. Corbusier, Assistant Surgeon, on being relieved by Captain Taylor, will report in person to the commanding officer Fort Hays, Kansas, for duty at that post. Par. 10, S. O. 227, A. G. O., Washington, September 29, 1888.

The leave of absence granted Captain John M. Banister, Assistant Surgeon, in S. O. 210, Sept. 10, 1888, from this office, is extended one month. S. O. 232, A. G. O., October 5, 1888.

Official List of Changes in the Medical Corps. U S. Navy (Pacific Station), from Sept. 20th to Oct. 20th, 1888.

Medical Director A. L. Gihon, detached from Naval Hospital, Mare Island, Cal., October 15, 1888.

Medical Director Adrian Hudson, reported for duty in charge of Naval Hospital, Mare Island, Cal., October 15, 1888.

ITEMS.

Reed & Carnrick's Soluble Food.—The *Boston Medical and Surgical Journal* recently published some extracts from the report of the New Jersey Dairy Commissioner, Dr. Newton, being analyses of Reed & Carnrick's preparations, in which they are rather severely handled. It appears that these figures were not reliable and the *Journal* has published a circular from Dr. Newton which corrects the misapprehension. We append the principal points of the circular.

An analysis by Prof. Elwyn Waller, Professor of Analytical Chemistry at the School of Mines, Columbia College, N. Y.

I examined a sample of 'Carnrick's Soluble Food, (purchased by myself from Eimer & Amend). I find that 38.26 per cent. of the albuminoids which it contains are in the soluble form. The sample also gave readily, the biuret reaction for peptones. I failed to detect in the food, when moistened, any of the hard, unchanged particles of casein which it has been asserted that it contains. My results lead to the conclusion that the casein in the preparation has been partially rendered soluble by the action of the digestive ferment as claimed by the manufacturers.

(Signed) ELWYN WALLER, PH.D.

Letter to Dr. W. K. Newton, State Dairy Commissioner of New Jersey:

NEW YORK, September 18, 1888.

Dear Sir—The report of your department for the year 1887, refers to certain preparations made by Reed & Carnrick, of New York, in a way which, from my knowledge of their work, seems to do them injustice. The statements to which I especially refer, are: (1) That the milk solids in the preparation known as Carnrick's Soluble Food contains merely the dried casein of the original milk, neither changed nor modified by any process of digestion. (2) That the analysis of this food given in the Report of the State Board of Health of New Jersey for the year 1885 correctly represents it, giving as it does only 10.25 per cent. of total albuminoids. (3) In the analysis of the preparation known as Liquid Peptonoids (New Jersey State Dairy Report, 1887) the proportions of alcohol and albuminoids there given are made the basis of comments which are extravagant in language, and unnecessarily severe. On February 20, 1888, I made, at the request of Reed & Carnrick, a test of the peptonized milk received in good condition from their factory. Of the albuminoids of the original milk 46.6 per cent. were found to be rendered soluble (that is, no longer precipitable by boiling or by acids). Through the process of digestion such soluble nitrogenous matters must, under the circumstances, consist of peptones, albumnoses and caseoses, products of the modification of the original albuminoids of the milk by digestion. Having made many analyses of this food during the past three years, I have never found the proportion of albuminoids to run below 16.5 per cent. as determined by combustion with soda lime. The average of fifteen analyses, made since January 1, 1887, shows 18.96 per cent. of albuminoids. These results also agree well with the analyses of the same food made by Stutzer and other well-known chemists. As to the liquid peptonoids, the proportion of albuminoids is limited only by the quantity which can be kept unchanged in solution. 16 per cent. of alcohol is necessary to prevent decomposition of the albuminoids, and no quantity greater than three per cent. of these can be held in solution in this liquid. Many attempts have been made to accomplish a better result, but in all cases the excess of albuminoids was deposited after a time, or (with reduced proportion of alcohol) decomposition of the albuminoids occurred.

Very respectfully,

A. A. BRENEMAN,

Analytical and Consulting Chemist.

Sacramento Medical Times.

VOL. II. DECEMBER, 1888. NO. 12.

GENERAL SUMMARY OF CONCLUSIONS FROM A SECOND SERIES OF ONE THOUSAND CONSECUTIVE CASES OF ABDOMINAL SECTION.*

Read before the Birmingham and Midland Counties Branch, British Medical Association.

By LAWSON TAIT, F. R. C. S., LL. D., etc.

Professor of Gynecology in Queen's College, Birmingham; late President of the British Gynecological Society; Honorary Consulting Surgeon to the Brooklyn Hospital for Women, etc.

When I had the privilege some four years ago of communicating to this Society the results of my first series of 1000 consecutive cases of abdominal section, I said that I did not know whether the general death rate, 9.3 (the figures ought to have been 9.2, the fractional increase being an error), was high or low, for no such series had up to that time been published, nor have I seen such a series since, I thought the figure must be high, and I expressed my conviction that if I lived to complete another such series the death rate would be very much lower, and it is with no small satisfaction that I can record a diminution from 9.2 in the first series to 5.3 in the second. I pointed out that as my first series included my early work, which had been so heavily tainted by the mortality of clamp and other blunders arising from the traditions of the elders, the mere freedom from these alone ought to give me far better results. That this prediction has been completely verified is certain from the mere fact that my mortality in the treatment of ovarian and parovarian cystoma has fallen from 8.1 to 3.3. But that by no means represents the full gain which I can point out, for in this class of cases I had, in my previous series, a large group of uncompleted operations with a mortality of at least 50 per cent. and these have now practically disappeared. They were cases chiefly of sessile ovarian tumors and imbedded cysts of the broad ligament, the removal of which I always now complete, and thus at once diminish my mortality, together with that greatest of all opprobria, imperfect work. I am now in a position to say that no cystic tumor of the abdomen exists which cannot be removed, and this is quite as true of solid tumors of a non-malignant character associated with any organs in the abdomen except the liver and spleen, and I lay far less stress upon my diminished death rate as evidence of the improvement of my work, than upon the fact that in my second series I have only to plead guilty to six uncompleted operations in 1000, whereas in my first series the number was thirty, with the same mortality in each—50 per cent. Even in these six, I know now, for *post-mortem* examination revealed the fact, that I could have finished the operations in at least two, perhaps in three, if I had screwed my courage up to a still harder strain, and I blame myself accordingly.

I therefore lay it down as an axiom that a man who has a large proportion of unfinished operations is a bad surgeon, worse than one with a

* From advance slips forwarded by direction of Mr. Lawson Tait.

high mortality. I may here again assert that I never in any way select my cases or refuse to operate in such as look unfavorable for any statistical results. This diminution of incompleted operations may, I think, be fairly and entirely put down to increase experience, giving greater readiness of resource, better judgment, and increased manual dexterity: and to some extent the diminution of the death rate may be credited in the same direction. But I am proud to be able to say that there is certainly another factor which enters largely into this increased success, and that is the fact that the mind of the general profession is now rapidly freeing itself from the shackles of the ancient authorities of abdominal surgery, and is opening itself to the new rules of progress. The most important of these are two: first, that the principles which govern our actions in general surgery must apply to the abdomen; and the second is that no doubt or difficulty of diagnosis should stand in the way of adopting that means by which the diagnosis is at once made clear, and successful treatment rendered possible by means of abdominal section.

In our Birmingham and Midland district these rules have received an almost universal acceptance, and it is only from outside places now that we get cases which are a disgrace to our art. The day has now come for very plain speaking on this subject for very many reasons, some of which I have repeatedly urged on former occasions, and a few others which are new. Of the former I may cite one. Do we not invariably urge a woman who comes to us with an abscess of the breast to have it opened without delay? If so, why should we not deal on the same principle with a woman who has an abscess in the pelvis? We might just as well treat the former with a splint as the latter with a pessary, and this kind of nonsense is one I could illustrate afresh every week from my practice.

A rule was introduced by Sir Spencer Wells some thirty years ago, and is maintained stoutly yet by his followers, that an ovarian tumor should not be removed as long as the woman can go about. On the contrary, the rule which I have advocated for the last ten years is that the time for the removal of an ovarian tumor is as soon after the time of its discovery as is possible.

What would be thought of us if we told our patients with enchondromata of the thigh, or sarcomata of the jaw, or lipomata of the neck, or aneurism of the femoral, to nurse and treasure their troubles as long as they could go about? What would we say of a physician who, when he discovered an incipient pneumonia, advised his patient to go about as long as he could, and, when he could do so no longer, this physician would come in to treat the case? I ask again and again why the rules of general surgery and medicine should be excluded from abdominal surgery; and I get no one to whisper an answer; and I show in every series I publish, with increasing emphasis, that early operations mean successful operations, and I am glad to say that nineteen out of twenty of my neighbors agree with me. But what about the others? Let me give two of my most recent experiences on this subject, they both occurred last week. A gentleman who is very amiable and good, sent me a woman in the last stage of exhaustion and emaciation, and he sent me a notice to the effect that he had been attending her for three months, with a lump in her pelvis, that he could not make out what it was, and that, therefore, he sent her to me. I opened the abdomen, and removed a huge putrid fetal sac, the result of a ruptured tubal pregnancy, a thing that ought to have been removed when this gentleman first saw her. Of course she had no chance of recovery, and died a few hours after the operation. Now, this gentleman's conduct cannot be considered a credit to our profession, and I have in all probability sacrificed his friendship forever by frankly telling him so. For twelve weeks he went on physicking this poor wretch; and when he sent her to me, she had nothing left to pay for an operation, and was an object of my charity—a subsid-

iary, but still certainly an element in the case. But, worse still, he secured for me a fatal result, which I do not deserve; and, worst of all, a crime in my eyes, for which there is no forgiveness, he secured for surgery a disaster instead of a triumph. I am speaking strongly, gentlemen, but not more so than I feel; for the advancement of our art depends not more on those who practise such a department as this, than on those who are in the position to give us reasonable chances of success, and that success is essential for all of us concerned in dealing with sick people.

A worse case than this, however, is the second; for the gentleman who sinned as I have described, sinned by an act of omission, and in ignorance. But the second was a glowing sin of commission, and based upon that assumed certainty of diagnosis which the foolish and inexperienced mostly are guilty of.

My friend and former pupil, Dr. Gowans, of Perth, sent me last week a woman from that city, who brought with her a note dated March 22d; 1888, and signed "Skene Keith," to the effect.

"The case is probably sarcomatous. I told the husband that he must not hope for a recovery, and told the patient herself that, when the weather got better, she should go out and see if she got stronger. She would be better, I think, with a bottle, perhaps a tonic, or stomach mixture."

The case seemed to me rather one of large ascitic effusion, due to an ovarian tumor jammed in the pelvis, and probably fixed there by papilloma. As she had been tapped twice nothing further was to be got in that direction. With a sort of half hope that I might get the tumor out, I opened the abdomen, and, to my disappointment, found that the omentum, mesentery, spleen, and liver were all fully infected by advanced growths of papilloma, the centre of origin of which was a small cystic tumor of the right ovary, covered by dendritic masses. The tumor could, of course, have been removed, and a recovery for a short time would probably have resulted, but no permanent good could have been done, and I might have had to record a death which, had it happened, would have been more fairly credited to Dr. Skene Keith, and therefore I contented myself with an exploratory incision. From the history of the case I think it is perfectly certain that in March there was no papillomatous infection, possibly no papilloma at all. Dr. Keith's diagnosis of sarcoma is merely an illustration of how completely mistaken we may all be, even the youngest. The blunder consists in his not admitting the advisability of adopting the practice of exploring. Dr. Skene Keith has signalized himself by sneering at some people who open the abdomen on all sorts of pretexts, and his father has bewailed the "restless spirit of abdominal surgery which has lately been let loose," and they both have laid claim to a freedom from errors in diagnosis to which no others have a right. But such a case as this, and it is by no means my first experience, walking in the footsteps of these two conservatives, makes me satisfied in my restlessness. Had this woman's abdomen been opened last March, in Edinburgh, as it ought to have been, she would have been another life saved.

It is far better that we should even open the abdomen a few times unnecessarily than that we should deliberately limit the powers of our art in this foolish way.

In my former series there were ninety-four simple exploratory incisions; of these I said that "ninety four is a large number, but it must be remembered that years ago I advocated exploratory incisions in preference to first tappings, and that I have persistently carried out the practice. They serve the purpose of complete tappings; and as the patients almost uniformly recover, they do not harm at all." The same is true of the present series, and I never tap as a first proceeding, I always explore. In

the present series there are only fifty-three of such operations, and this diminution is chiefly, if not entirely due to the fact that I get the cases earlier than I used to do, so that I arrive at results exactly the opposite of the disaster just narrated in Dr. Skene Keith's case. There are at least thirty cases in this series in which I have removed tumors successfully, and these, had they been delayed as in his case, would have resulted as in that instance, an argument for early operations and for exploratory incisions which is perfectly unanswerable.

Against the fifty-three exploratory incisions there are recorded two deaths, but these two deaths might be eliminated from the table with perfect fairness, for the operation neither delayed death nor accelerated it by an hour.

I have also to repeat what I said before on this subject, that "occasionally the exploration is followed by drainage, and in some of these cases results of the most marvelous kind have followed, the ascitic effusion has not appeared again," and tumors of spleen, liver, and of other kinds, the nature of which were not ascertained, have disappeared, and the patients have been permanently cured.

I am as far off as ever from any explanation of this extraordinary fact, but as it has received abundant confirmation since I first announced it, it is beyond dispute.

The next group of my series is a lot of 263 cases of operations for chronic inflammatory disease of the uterine appendages, with a mortality of 3.4 per cent., as against a mortality of 5 per cent. in my first series, a diminution due largely to increased experience. Here, too, the absence of mere exploratory incisions and incomplete operations is very marked, for there is not a single case of incomplete operation to be credited to this group. These operations are far more difficult in every way than removal of tumors of any kind, and the deaths are almost entirely confined to cases of broken-down women, the "too-late" cases, as Mr. Bryant well designates them. Since my last paper this subject has been threshed out in numerous discussions, and has even appeared in the law courts, but the confirmatory verdict of the lay, as well as that of the professional jury, has been in absolute harmony with all I have said on the subject. Useless and diseased organs, incurable by ordinary means, must be removed from the pelvis, just as from other approachable parts of the body; even the lungs are no longer sacred to the "restless spirit of modern surgery." The route of my practice is not governed solely by my own wishes and inclinations. It is far more completely influenced by the judgment of my professional brethren, and the fact that from all parts of the world these cases have been sent to me in the increased proportion of 263 in this 1000, to that of 201 in my first series, is a convincing proof that the benefits of this proceeding are being fully recognized. I am not concerned in the present paper with the ultimate results of such cases, but I may mention incidentally that these have been materially augmented, and the period of convalescence shortened, since the discovery by Dr. Arthur Johnstone, of Danville, Kentucky—and it is one of my greatest honors to be able to say that he was one of my pupils —that there is a large nerve trunk entering (or leaving) the cornu of the uterus, in the angle between the round ligament and the tube, which seems to have a powerful agency in the process of menstruation. When this trunk is secured in the ligature close to the uterus, the results of the operation are more speedily effected, and are more complete.

I have just received a very strange pamphlet with a very attractive title, *Electricity versus Tait;* surely a subject large enough to attract universal attention. Of the manner in which the author speaks of the defendant in this action, I have no reason to complain, in fact quite the reverse. It is very flattering, and I hope altogether true; but when he

speaks of the immediate subject, which is really that of chronic inflammatory disease of the uterine appendages, I feel sure that every skilled reader will come but to one conclusion, that the author has never seen the disease which he professes to cure by electricity. I showed the pamphlet to a skilled electrician a few days ago, and his verdict was that the author did not know what electricity was, or anything about it; yet the following is a quotation from its pages: "In the use of electricity we subdue the local inflammation, promote absorption of hyperplasia and hypertrophy, establish the general health, and produce proper nutrition. In this manner of electrisation we have a means brought to bear upon nutrition, local and general, of such pronounced influence that the result is all that could be desired. By it I have been enabled to carry the class of cases instanced above over the apparent limit of repair; observed thickened tubes and adhesions of long standing disappear, which had resisted every means to overcome them." By such writing as this we are strikingly reminded of Bishop Berkeley and his book on coal-tar water, from which I might reclaim parallel passages; but the famous metaphysician was floored by the concrete example of a sailor's wooden leg. Let our electrolysists try a living limb of flesh. Gonorrheal inflammations of the uterine appendages are very common, and similar diseases of the large joint are not unknown; they are almost equally intractable. Fortunately in the case of the joints the recovery can be greatly assisted by rest in splints; but we cannot put the ovaries and Fallopian tubes in splints; we have no means of giving them physiological rest short of destroying them. Therefore they are in a far worse position than the joints I speak of. Asking amongst my friends who practise general surgery, I find they say that gonorrheal inflammation of joints is a most intractable disease, rarely getting well under the most favorable conditions in less than six months, and often extending over years; finally, that a serious proportion of the cases never get well at all, or get well only with stiff, useless joints. Here, then, is Dr. Berkeley's wooden leg. Let us ask our electrolytic friends to take some cases of gonorrheal elbows and knees, and let us see what they can do. If they cure them, as they say they cure the same disease in the uterine appendages, then we can believe them about the pelvis. But let them remark the contrast: the joints are outside, visible, and easy of observation, whereas the favorite hunting ground of quackery is an obscure, mysterious mucous canal.

One other word about this *Electricity versus Tait*, and I am done with the subject. He assumes, like many other critics, that those of us who deal surgically with the abdomen and pelvis are like Mr. Wemmick, "Here's a church, let's have a wedding." "Here's a something, let's have an operation" So far as I am concerned, this is not so. I have always said that the great bulk of cases of inflammatory disease of the uterine appendages get well without operation, though by getting well we do not necessarily mean that they are cured. All I contend for is that the residuum should not be condemned to live on, hopelessly suffering, whilst there is a *dernier ressort* at our command. When that should be called in is a matter for determination in each particular case, and depends upon conditions which cannot be formulated into laws, varying as they do in importance, even according to the social position of the patient. Electricity may yet prove the means of still further diminishing the number of cases to be submitted to the surgical method, but it does not promise much in the hands of those who have taken it up. Ever since the year 1827, which date indicates, so far as I can discover, the first serious application of the electrical current to the treatment of disease, it has been a source of disappointment to the honest, earnest practitioner, with an exceedingly limited area of exception, whilst it has, on the other hand, yielded an abundant harvest to the pouch of the charlatan.

Naturally enough, this brings me to speak of the treatment of myoma, concerning the electrolytic treatment of which much discussion has taken place within the last two years, since Dr. Apostoli made assertions concerning it which startled the surgical world. To form a judgment on such a subject as this, there are two methods, both of which must be applied: the first, open, it is true, to much fallacy, and the second, still fallacious, but much more trustworthy; but they must both be tried to satisfy a mind that is logical. The first method is that of *a priori* reasoning; and when Dr. Apostoli's assertions were subjected to this process, it was found that there were grave initial objections to his statements. In the first place, there was nothing new about his processes whatever. It is true he had a new nomenclature, but that was all; and in not a single essential detail were his methods new. Years before they had been tried, but failed, and had been found to be dangerous. Then it was remembered that Dr. Apostoli had made precisely similar assertions about the process of involution of the uterus after labor. He had asserted that all the evils of subinvolution might be obviated by the electric current, his proposals had received a fair trial, and had been uniformly condemned. Cognizant of all this, when in Paris eighteen months ago, I made very extensive inquiries, and I could find no evidence which induced me even to visit Dr. Apostoli's clinic; for merely to see electrodes applied to patients by a man who had had no experience in gynecology, who had received most of his training as an army surgeon, could be of no service. I inquired as to what was known to others concerning the ultimate results of patients who had been treated by his methods, and I heard quite enough to make me determine that I should leave this kind of treatment on this side of the Channel to others. I had no desire to complicate my work with such difficulties and dangers as I heard of on all sides, and I was perfectly sure that I should before long find that there were others ready enough to try them. Speedily we had accounts in the medical journals of visits to Dr. Apostoli—Dr. Burton, of Liverpool, and Dr. Elder, of Nottingham, wrote such papers. I have heard of two fatal cases in Liverpool occurring in the practice of Dr. Grimsdale, and in which the treatment was carried out by Dr. Burton. I wrote to Dr. Grimsdale, asking if the statement were correct, but he has not even answered my letter. Dr. Elder has written to me within the last few days with regard to electrolysis: "I am convinced it will not do as much as some of us hoped. In the majority of hemorrhagic cases, it certainly is an efficient hemostatic, although the effect is not always permanent. Now and again, in the same class of cases, it signally fails to modify the flow. Rarely under its use a tumor disappears; in a larger number of cases it causes marked shrinking; whilst in some, even with symptomatic improvement, no diminution in size follows. Pain it usually relieves, and in most cases an improvement takes place in the general nutrition. As it evidently will not abolish hysterectomy, I have invented an 'Elder's Clamp,' which I hope you will try." But all that Dr. Elder admits can be secured by easier and safer methods; and, therefore, electrolysis gains no support from his evidence. My colleague, Dr. Savage, also went to see Dr. Apostoli, and wrote a paper on what he was told he was seeing; but he does not try the methods, at least not in hospital practice; and when, at consultations, I have urged him to do so in what seemed to me suitable cases, he merely shook his head with much gravity, and proceeded to remove the uterine appendages.

In London, electrolysis has been much vaunted by a few, but they are notably those who have been unsuccessful in their efforts at abdominal surgery.

I have, therefore, received no more encouragement from the second or empirical method of investigation than I did from *a priori* argument, and I have left electrolysis severely alone. My own negative experience has

quite justified this action, for it is as follows: Since May, 1887, there have been fifteen patients who have passed through my hands upon whom the electric treatment has been tried, as a substitute for surgical interference. Three of these have died, though I do not know. Nine others have returned to me for operation, and have all got well. The remaining three are as yet undecided. In addition to these, I have performed hysterectomy on three patients who have just before been subjected to treatment by electrolysis; and I have removed the appendages in four cases which have been similarly treated.* I conclude, therefore, that up to the present we are still in want of evidence in favor of Dr. Apostoli's claims in this country; and if we take a recent record in Germany, we find all that I urged against it on *a priori* grounds completely confirmed.

It is published by Dr. Bröse, in the *Zeitschrift für Geburts. und Gynäk.*, Band xv, Heft i:

Case I.—The patient was 50 years old, a multipara, suffering from multiple uterine myomata. Uterus, 12 centimètres in length; the tumor reached to within two fingers' width of the umbilicus. She suffered much from pain and irregular hemorrhage. After a few sittings the pain was eased; the size of tumor and uterus diminished. After thirty-five sittings, uterus 6¾ centimètres; all pain and irregular hemorrhage had disappeared. Fifteen months later she came again; the pain and tumor had returned; but again disappeared on applying the constant current. After sixteen sittings, uterus 5 centimètres long, and the highest point of the tumor 7½ centimètres from the umbilicus; the patient suffered no more pain.

Case II.—Patient aged 43; had aborted twice, and suffered from a large uterine myoma, which filled up the pelvic cavity and projected 15 to 16 centimètres above the symphysis. The sound passed 11½ centimètres into the uterus. She suffered from irregular hemorrhages. After a few sittings the pain was eased, the size of tumor and uterus diminished. After thirty-five sittings, uterus 6¾ centimètres. All pain and irregular hemorrhage had disappeared. Fifteen months later, she came again; the pain and tumor had returned, but again disappeared on applying the constant current. After sixteen sittings, uterus 5 centimètres long, and the highest point of the tumor 7½ centimètres from the umbilicus; the patient suffered no more pain.

Case III.—Patient aged 43; had aborted twice, and suffered from a large uterine myoma, which filled up the pelvic cavity and projected 15 to 16 centimètres above the symphysis. The sound passed 11½ centimètres into the uterus. She suffered considerable pain and from pressure symptoms; menstruation regular. During treatment the pain ceased, and the tumor reached 13 centimètres above the symphysis. The patient absented herself for nine months, and came back worse than before. The tumor had grown again, and the uterus measured 12¼ centimètres. On using

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*The only case in which I have seen pronounced benefit has been derived from the treatment of electrolysis, and is one which occurred at the hands of Dr. Apostoli himself. It was a case of subinvolution and chronic metritis, with the invariable retroversion of the uterus, accompanied by chronic catarrh of the endometrium. This lady went over to Paris, and had, according to her own account, thirty-one applications of the electric current, several of which were conducted under an anesthetic. Of course she does not know exactly what was done, but she tells me that the treatment was so severe that nothing would induce her to undergo it again. It occupied five months, and cost a very great deal of money. Now, such a case as this could be, and certainly in my practice is, invariably cured by the simple process of dilating and curetting the uterine cavity, and applying Paquelin's cautery freely to the inside. This proceeding is absolutely devoid of risk; nothing in the least approaching anxiety has ever been experienced in an enormous number of cases I have successfully treated. The pain is infinitesimal, and only one sitting is required. The cost is a mere bagatelle. I do not see, therefore, that the electrolytic treatment can be accounted in any way an advance upon the treatment by curette and actual cautery; in fact, it is entirely the contrary.

the constant current the symptoms again abated. After eleven sittings the uterus was 11 centimètres long; the patient then left my care.

Case IV.—Patient aged 29; one child; submucous myoma. The uterus was as large as a four months' pregnancy. There was much dysmenorrhea and menorrhagia. After one sitting (1½ milliampères) slight pains like labor pains; second sitting (20 milliampères), strong contraction of the uterus, with labor pains, which lasted for two days continuously, till the next sitting. Bloody discharge; pieces of tissue (myoma) were passed. A badly smelling discharge came on; the myoma had necrosed and was being cast out. The constant current was applied twice again; the necrotic mass removed with spoon; the uterus drained. Death five days later from septic peritonitis.

Case V.—Aged 36; nullipara; uterine myoma. Great pain and much dysmenorrhea. No result after twelve sittings. Hysterectomy was successfully performed.

As a contrast let me submit a group of 148 cases of the removal of the uterine appendages for myoma, with three deaths, giving a mortality percentage of 2.03, as against my 99 cases in the former series with a mortality of 7. I have already published in detail (*British Medical Journal*, September, 1885) proof of the satisfactory and permanent results obtained from this operation, and have only, in addition, to say that these are maintained. I have, in the two series to include 247 cases with ten deaths. Of the 237, I know that three have since died of cancer, and that three have had hysterectomy performed, owing to the subsequent growth of the tumor, and I know of no other failures.

The next group is that of 88 hysterectomies, with a mortality of 11.3 per cent.—a striking contrast to my previous series of 54 cases with a mortality of 35.7, a result so distressing that I utterly condemned the operation. But, as Dr. Elder says, we are driven to it no matter what Dr. Keith says, and if Dr. Keith had not refused to let me see him do the operation, my mortality in this series would have been less than it is now, for he had a method of operating which I did not know, and the knowledge of which at once reduced my mortality enormously. The point was a very simple one. He tied the broad ligaments separately and stripped them off the uterus. He does not seem to have appreciated the reason of the success of this method, but the explanation is very simple. It prevents occlusion of the rectum by taking off strain. The fact that I have gone so far as to have thirty-one consecutive recoveries from hysterectomy satisfies me that, before long, I shall bring its mortality down to something approaching that of ovariotomy.

I have already said in previous writings all that need be said concerning such operations as cholecystotomy, nephrectomy, nephrotomy, opening and draining pelvic abscesses, and operations for tubal pregnancy. I have nothing to alter and nothing to add.

For the relief of intestinal obstruction, I still prefer to perform enterotomy, rather than to make prolonged researches for the seat of obstruction. I have put a group of these cases together, but they have so many divergent features, that no efficient conclusion can be derived from mere statistical display. I propose to make this subject the basis of a special paper to the Midland Medical Society during the ensuing session. Of suppurating peritonitis treated by abdominal section, washing out and draining, I have to speak in terms of unqualified satisfaction. I have lumped together all the cases, save those that were puerperal, in the same group, for it really is impossible to draw hard-and-fast lines between the acute cases and the chronic. I have operated, in this series, on 26 cases and have saved 22. I say saved advisedly, for, without the opening of the peritoneal abscess, they must all have died. The mortality is 15.3 per

cent., and in my first series I had nine cases with a mortality of 22.2 per cent. Here, again, I must plead with my brethren for assistance, and urge that cases of purulent effusion in the peritoneum should be treated by early and efficient drainage, just as purulent effusion in the pleura is dealt with.

Of puerperal peritonitis, I have to speak still with bated breath; I have operated four times, and had only one recovery. But I nearly had two others, and, I believe, if I had obtained twelve hours' start in these two cases, the mortality of my little group would have been 25 instead of 75 per cent.

In London the operation has been received with much favor, and has had very fair success. In a communication on the subject Mr. Treves expresses a view which seems to imply that in my practice the operation arose, in a sort of blundering way, in a case which I did not know what I was about; and subsequent writers are, therefore, disposed to give Mr. Treves the credit of introducing this practice. Mr. Treves is quite mistaken about my introduction of the operation, which took place in a case sent to me by Dr. Arthur Underhill in 1879. Dr. Underhill had diagnosed the case completely, and I quite concurred in his view of it; I therefore opened that patient's abdomen, not only knowing quite well what I was about, but with the full intention of relieving my patient, and I was successful. The operation was performed on October 30th, 1879. Puerperal peritonitis—puerperal fever, as it is practically called—is a deadly disease. The recoveries from it are quite fractional. The argument, therefore for attempting to save such cases by opening or cleansing is surely a strong one, but it must be fairly tried; that is, it must not be left merely to close the scene with. I am strongly disposed to think that, in severe cases of puerperal inflammatory mischief, the chief trouble is in the womb itself, and I am inclined to think removal of the organ in its inflamed condition may be requisite. In any case, the disease is so hopeless when left alone, that any kind of effort seems legitimate.

One small group of cases remains for discussion, as it is full of interest; I mean those in which the pregnant uterus was amputated because it was impossible to remove the child by the natural passages. In my life I have three times performed the old Cæsarian section, and the mother died in every case. In a fourth case, seven years ago, I did exactly what Sänger claims as a new operation, and I removed the appendages to prevent future impregnation, but the patient died. I put all these deaths down to the fatal influence of the "puerperal condition," but it is clear that that explanation is nonsense, for I have now done four operations on the principle laid down by Professor Porro, and all the mothers have recovered, and the children have all lived. The operation I performed is certainly not Porro's operation, for I have altered nearly every detail; but the discovery of the new principle—that of removing the uterus to save the mother from the fatal effects of suppurative metritis, and the possibility of having the same trouble over again—is the credit of my friend Professor Porro. I prefer to give the operation the name of no particular person, because men's names attached to operations are always productive of misunderstandings, quarrels and confusion I indicate the principle by calling it "amputation of the pregnant uterus," every word of this being fact, and not theory.

This operation, I venture to predict, will revolutionize the obstetric art, and in two years we shall hear no more of craniotomy and eviscerations, for this new method will save more lives than these proceedings do, and it is far easier of performance. It is the easiest operation in abdominal surgery, and every country practitioner ought to be able and always prepared to perform it. No special instruments are required—nothing but a knife, some artery forceps, a piece of rubber drainage tube, two or three knitting-needles, and a little perchloride of iron.

My method of operating is to make an incision through the middle line large enough to admit my hand, and then I pass a piece of rubber drainage-tube (without any holes in it) as a loop over the fundus uteri, and bring it down so as to encircle the cervix, taking care that it does not include a loop of intestine. I then make a single hitch and draw it tight around the cervix, so as to completely stop the circulation. I give the ends of the tube to an assistant, who keeps them well on the strain, so as to prevent the loose knot from slipping, the reason for this being that should there be any bleeding and any necessity for further constriction, I could secure this in a moment, without undoing any knot, and the simplicity of this method greatly commends it. I then make a small opening the in uterus, and enlarge it by tearing with my two forefingers, seize the child by a foot and remove it. I then remove the placenta, and by that time the uterus has completely contracted and is easily drawn through the wound in the abdomidal wall. The stricting tube will now probably require to be tightened, and the second hitch of the knot may be put on at the same time, and the work is practically done. Stuff a few sponges into the wound to keep the cavity clear of blood, and pass the knitting needles through the flattened tube and through the cervix, and in this simple way a clamp of the most efficient kind is at once made, the uterus is removed about three-quarters of an inch above the rubber tube. The usual stitches are put in, the wound closed around the stump, which, of course, is brought to the lower part of the opening, and then the stump is dressed with perchloride of iron in the usual way.

The operation takes far less time to perform than it takes to describe, and as there is hardly any possibility of complications, it is one of the simplest operations that can be undertaken, and must always be pretty much the same; for this reason no one need be in any fear about undertaking it, for, in the absence of variation in the difficulties to be encountered, it differs entirely from any other operation in abdominal surgery. If performed before the patient has been mauled about by ineffectual attempts to deliver, its mortality will be no greater than that of ovariotomy, and the argument in its favor against all alternative proceedings are, first, that it cannot be more dangerous to the mother than most of these are, that it saves the life of the child, that it prevents the unfortunate mother from again being placed in a similar condition, and it certainly has the great advantage over alternative proceedings having a similar object, that its great simplicity, as contrasted, for instance, with operations proposed by Thomas, Müller and Sänger, will make it possible for the country doctor, less experienced in surgery, to perform it without hesitation. These complicated and difficult proceedings may have their advantages, though I confess I do not see them, but they will be left for the hands of experienced specialists. The operation I have described will be the operation of emergency, when only the resources of general practice are at hand.

Analysis of Series.	Cases.	Deaths.	Mortality	Mortality of previous Series.
			per cent.	per cent.
Exploratory incisions	53	2	3.7	2.1
Cystoma parovarian	24	1		
" of one ovary	158	6	3.3	8.1
" of both ovaries	78	2		
Enucleation of cysts of broad ligament	12	0		
Removal of appendages for myoma	148	3	2.03	7.0
Removal of appendages for inflammatory diseases	263	9	3.42	5.0
Removal of appendages for deformity	2	0	0.0	0.0
Hysterectomy	88	10	11.3	35.7
Opening and draining pelvic abscesses	6	0	0.0	0.0
Hepatotomy	5	1	20.0	0.0
Cholecystotomy	28	2	7.1	0.0
Nephrectomy	12	2	16.6	0.0
Nephrotomy	24	1	4.16	0.0
Ruptured tubal pregnancy	28	1	3.57	9.0
Hydatids of peritoneum	4	0	0.0	0.0
Tumors of omentum and mesentery	2	0	0.0	0.0
Enterotomy	11	2	18.18	12.5
Supp. peritonitis, opened and drained	26	4	15.34	22.2
Puerperal peritonitis	4	3	75.0	—
Radical cure of hernia	9	0	0.0	0.0
Amputation of pregnant uterus	3	0	0.0	—
Tumor of abdominal wall	1	0	0.0	—
Resection of cecum for cancer	1	1	100.0	—
Perityphlitis, removal of vermiform appendix	2	0	0.0	—
Incomplete operations	6	3	50.0	50.0
Cholelithrotody	2	0	0.0	—
	1,000	53	5.3	9.2

THE PRACTICAL TREATMENT OF SEASICKNESS.

By N. S. Giberson, M. D., Surgeon S. S. "Mariposa."

There is, perhaps, no other disease in the category of human ills which has enlisted the utmost energy of specific medication like seasickness. Every school of medicine has tried its hand, but, in the presence of an angry sea and of a susceptible temperament, that hand has fallen in abject helplessness. This distressing malady is as hydra-headed in its manifestations as chronic eczema, and like that trouble has defied the resources of three materiæ medicæ. Homeopathy dealt the monster a death-blow, with its low potencies of petroleum and of apomorphine; hydropathy came confidently to the rescue of the hapless victim of naupathia, with its compresses of cold water and copious draughts of the same element taken hot; while regular medicine, repeatedly baffled, has pursued the study of this inexorable disease from a scientific standpoint, and, from the demonstration of a more or less correct etiology, has deduced a treatment which nourishes the germ of a true specific, whose action upon naupathia will be as characteristic as the effect of quinine on intermittent fever, or of the tincture of iron in erysipelas.

The first really effective contribution to the pathology of naupathia was made a few years since, when a French observer, noting a similarity in the objective symptoms of the two troubles, advanced the opinion that "Menière's Disease," or aural vertigo, and naupathia had a common causation, viz: a hyperemia or apoplexy of the semi-circular canals, characterized by vertigo, pallor and obstinate vomiting; and, from analogous reasoning, he named the nervous sedatives as theoretical specifics in the latter trouble. From a development of this idea sprang the judicious and highly beneficial treatment of naupathia by the "bromides;" and it is a matter of surprise under what a variety of names these remedies are now advertised. Every drug store has a "seasick" remedy, and in nine cases out of ten they are composed of a strong solution of the bromide of sodium or potassium, or of both, in camphor water; and the same formula, with slight variations, constitutes the great bulk of the regular prescriptions for the same purpose, The luckless victim of the naupathic predisposition will apply himself diligently to his bottle for two or three days before sailing, under the serene promise of his medical adviser that the ounce of prevention will work wonders; and he may thank his lucky stars if his body is not covered with an inflammatory acne before he is three days at sea.

Acute bromidism seems to be easily and rapidly induced in a system whose tone is lowered by seasickness, and unless one is on the *qui vive* for its appearance, the question of diagnosis, in a case of this kind, is not always so satisfactory as might be wished. A case of variola discreta makes its appearance, and a few days afterwards attention is drawn to a person who had been exposed to the previous case, and is complaining of headache, pain in the back, with some fever, which, however, subsides in about three days, just as a scattered papular eruption shows itself on the extremities and the upper part of the trunk. Then, if you are away from any hope of a consultation, you will rub up your differential diagnosis vigorously and will derive but a poor and unsatisfactory consolation from a history of large doses of the bromides. Yet this experience occurred twice to the writer in one trip, and both cases turned out to be simple acne, which subsided in a few days.

The bromide treatment, as a prophylactic, is to be extolled, for, in a large proportion of cases, it either totally prevents or greatly mitigates the severity of the symptoms. But at sea its usefulness is greatly abridged by its disgusting taste. Every digestive sense,

if I may be pardoned the phrase, is in a state of abnormal excitability in naupathia; an offensive odor, a sweet, sour, acrid or bitter taste, will often undo the labor of days and arouse the tortured stomach to an invincible irritability. True, the drug may be administered by enema, and when combined with large doses of chloral, is often very serviceable. But the labor involved in such an operation, particularly in rough weather, when it would be most needed, practically precludes its use except in extreme cases.

Thus the bromide treatment was seriously handicapped, and thoughtful observers turned with unflagging courage to a still more rigid observation of the clinical features of the trouble, for the indication of remedies whose action at sea should be unattended with nausea. Slowly the opinion crystallized that naupathia was but the expression of a functional irritation of the nervous system, and that the symptoms of the trouble could be fairly explained on the theory of a suspension of the functions of the great sympathetic. Take, for example, the now well recognized action of the sympathetic upon the non-striated muscular fibres, such as the intestinal coats, the iris, and the walls of the arteries, and we have in this theory a plausible explanation of the myosis, the constipation and the marked decrease in arterial tension which is so characteristic of seasickness. The sympathetic ganglia of the heart would play no unimportant part in this reduced blood-pressure, which, in its turn, by producing anemia of the medulla oblongata, would give the persistent nausea and vomiting. For the original cause of this paretic condition, may we not reasonably invoke the reflex action caused by excitation of the nerve endings in the abdominal organs on the contiguous semi-lunar ganglia and the great solar plexus? During the occurrence of these phenomena reflex action remains intact.

The nervous symptoms of naupathia bear a strong resemblance to concussion of the brain in its milder forms. Great prostration, physical and mental, coëxists with indisposition to the slightest exertion; while vertigo and intense frontal headache with insomnia are frequently present. The pulse is thready, and the number of the cardiac pulsations greatly reduced, while the skin is cold and covered with a clammy sweat. After prolonged emesis gastralgia of a peculiarly distressing character frequently supervenes, and then the usually apyretic character of the affection gives way to an exacerbation of fever, during which the temperature may astonish the attendant by jumping suddenly to 103° F.

The remedies indicated for the increase of arterial tension are three—atropine, strychnine and caffeine—and they are administered hypodermatically for a number of reasons. The absorbing power of the stomach is completely in abeyance in naupathia and all classes of injesta become mere irritants. But should partial absorption take place from the gastro-intestinal tract, the effect of these alkaloids is apt to be neutralized by the destructive action of the liver.

Having determined, then, on the subcutaneous method of administration, it is of the first importance to ascertain the peculiar characteristics of the attack; whether the symptoms point to gastric or cerebral involvement, for these two principal forms of the malady very seldom coëxist, and with care their differentiation is easy. If there should be little or no emesis, but agonizing headache, with flushed face and a tendency to mental aberration, then the preference should be given to caffeine, and its administration is, in the great majority of cases, followed by the most salutary results. The equilibrium of the circulation is restored, the pain and distressing anxiety subside, and the exhausted patient falls into a light and tranquil slumber, from which he awakes substantially relieved. But in the ordinary cases, where gastric irritability is the all-including symptom, the mixture of atropine and strychnine exemplifies its marvellous power. Let me illustrate:

A young and vigorous woman, who assured me that a sea voyage was the bane of her existence, as she was sick in all kinds of weather, received, just as the nausea began, a hypodermatic injection of atropine $\frac{1}{150}$ gr. and strychnine $\frac{1}{60}$ gr. I watched the case closely, for I was skeptical of the result in the presence of such a marked idiosyncrasy. The only noticeable effect was a disappearance of the nausea and a return to her normal condition when on land. This is the peculiarity of these drugs; they appear to act simply in restoring suspended function, leaving no deleterious effects behind, to be worked off in some other way. I was still unconvinced, for I was aware that susceptibilities vary in the same subject, in naupathia, to a remarkable degree, and that this apparent cure might, after all, be only a coincidence. But my doubts were destined to a speedy solution, for the next morning she was quite as badly afflicted as of yore, and the ship was plunging through a heavy sea, seriously threatening the stability of everything movable. But I was not discouraged, for I was already satisfied of the efficacy of the remedy in mild cases, and was

desirous of giving it a thorough trial under the most adverse circumstances. I easily persuaded the patient to try again, and this time, as before, the administration of the remedy was followed by almost immediate cessation of the nausea and vomiting, and within half an hour she was sleeping the light fitful slumber so characteristic of exhausted nerves when quiescent under narcotic action. It is another peculiarity of these drugs thus administered, that neither morphine nor cocaine are more absolute nerve sedatives, and while the latter will rapidly vitiate the appetite, the former will so stimulate the digestive functions as frequently to induce an appetite in one who has taken them within an hour. Within twelve hours I administered another dose of the mixed solution as a precautionary measure, although I did not see any real need of it, but I dreaded to have the patient pass from under the effects of the drugs for at least forty-eight hours, and she cordially agreed with me. The next day she came to dinner for the first time in a long and varied experience on the ocean.

A middle-aged gentleman had been an object of commiseration to all on the ship for a week. He could retain nothing on his stomach, and the only endurable position was the dorsal decubitus on one of the deck benches, and there he would lie all day and far into the night, not having the courage to go below. He had long since obeyed the injunction to "throw physic to the dogs," and had made up his mind to suffer heroically. But a sharp gale of wind proved too much for his resolution, and after a night of retching he begged me to alleviate his misery. At bedtime the remedy was administered, and the next morning, at dawn, he was at my door, stating that he had passed a very comfortable night, and begging for another dose before the effect of the first had worn away. This was given him, and inside of twenty-four hours he was at his meals regularly and was soon one of the most active men on the ship.

It is needless to multiply examples. Suffice it to say that there are cases, particularly where organic disease, either of the respiratory organs or of the heart exists, when any or all of these remedies are futile; but these are exceptions, and as such should not prejudice the rule. The *sine qua non* in the treatment of seasickness is to restore the assimilative powers of the stomach. Without this, nourishment is a mockery. It is the old sailor's remedy for the land-lubber, that he should keep a full stomach and swallow a liberal allowance of whisky or brandy. And even compe-

tent observers have laid great stress on the question of feeding, esteeming it to be the sheet-anchor in the treatment. But that aliment is hard to find which will tempt the absorbents of a rebellious stomach and the mere exercise of swallowing, with the dismal certainty of ejecting it in a few minutes, is not calculated to recom- the "alimentary" cure of naupathia to the voyager Among the beef extracts so much in vogue, all are more or less nauseating, with the exception of the "peptonized" extract of Parke, Davis & Co., which assimilates fairly well in many cases. The beef, iron and wine, put up by the same firm, is invaluable in the treatment of naupathia, as it contains the same peptonoids as the extract and is always grateful to the patient. This concentrated nourishment in palatable form will build up the patient rapidly, and by abstaining for a few days from bulky food he will soon regain his normal condition. Ice in small quantities is most grateful, but it should be allowed to dissolve in the mouth and the fluid expectorated. Bass' ale, taken cold and in very small quantities, is in high repute and often answers an excellent purpose. Champagne, if dry, sometimes gives temporary benefit, but it is not reliable and is sure to be taken immoderately. A nickel-plated tap is a convenient adjunct to a champagne bottle, for by its use the liquor may be preserved, and the patient does not feel under obligations to finish the bottle at once to keep it from spoiling. And, above all, quiet, in an easy position, with an abundance of fresh air, is one of the elements of success in relieving seasickness. The imagination is not idle in this trouble any more than it is in any other neurosis, and although I am not prepared to subscribe to the "mind cure" theory, yet the profound depression and nervous apprehensions which are apt to accompany bad cases, may be greatly mitigated by an intelligent sympathy with the sufferer.

In conclusion, the outline of treatment above designated is purely empirical. But what line of therapeutics ever sprang full-fledged into existence without having the experimenter for its sponsor? In these days of *a priori* reasoning, experimentation may be said to be conducted on a scientific basis, but it is not the less experimental. And this theory of the cause and treatment of naupathia, offers in its application and development one of the most promising fields of research remaining to the enterprising explorer.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M. D., Sacramento, Cal.

Treatment of Diphtheria.—MR. JOHN RAYE has obtained excellent results from a treatment that he summarizes as follows: If laryngeal breathing is present, apply large sponges, well wrung out of boiling water, to the throat for at least an hour, changing the sponges as they grow cold. The sponge is easily prepared by putting it in a strong towel whose ends are hung over the edges of a basin, and then pouring boiling water over the sponge and wringing it dry by twisting the ends of the towel in opposite directions. The nurse can judge whether the child can bear the sponge by applying it to her own naked elbow. As soon as possible get carbolic steam around the patient and spray the throat, driving the spray down to the epiglottis, with—sulphurous acid, ℥ss to ℥i; syrup, ℥iii or ℥iv; water to ℥viii. This spray is to be used three or four minutes every hour or two, three or four hours according to its effect on the membrane. Give a mixture of sulphurous acid, ℥i; syr. aurantii, ℥iii or ℥iv; water to ℥vi or ℥viii, with or without quinine or chlorate of potash, ⅛ or ¼, as the case may be, every two, three or four hours, according to symptoms; *in severe cases every half hour.* Give plenty of liquid nourishment from the first, with a liberal allowance of port wine and bark or brandy, according to the state of the heart, pulse and general condition of the patient. When the danger of the acute stage is past give iron, quinine and strychnine, or cod-liver oil, and treat symptoms as they arise. For children of about three years the following mixture is enough:

Sulphurous acid, - -	℥ii to ℥iii
Syrup, - - - -	℥ii to ℥ii ss
Water, - - - - -	℥iv

One or two teaspoonfuls every hour or two hours. The spray as for adults. I am certain that if the case is treated early the disease will be cut short; in severe cases one may confidently predict a favorable result, and even in very severe cases—cases I formerly would have looked on as hopeless—a reasonable and just hope can be held out that the patient will recover. There are times when one is called to a dying patient; then the only chance of life is offered by immediate operation. In conclusion, I feel well assured that if the plan I have described be adopted at once, assiduously perservered in, and given a fair trial, diphtheria will no longer be the dreaded disease it is generally considered.—*Med. Press and Circular.* Aug. 1, 1888.

Antipyrin in Labor.—The excellent results yielded Dr. GRANDIN by antipyrin in dysmenorrhea and in other painful affections have led him to test it during the first stage of labor, and with sufficient success to warrant him in asking others to try the drug. His habit is to give fifteen grains, well diluted and preferably with some stimulant, such as the aromatic spirit of ammonia, and to repeat the dose in one hour. Afterward the patient receives ten grains every two hours, if needed. Chloral he

administers also in fifteen grain doses every forty-five minutes until three or four doses have been given. By this combination the pains are decidedly relieved. The progress of labor has not been at all interfered with, and neither mother nor child has presented evidence of injury from the use of the remedies.—*New York Medical Journal*, July 14, 1888.

SURGERY.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal.

Treatment of Hemorrhoids.—The following are the replies of various surgeons to the query, "What surgical procedure do you consider the safest, most generally applicable, and yielding the best permanent results in the surgical treatment of hemorrhoids?"

D. H. AGNEW: When large, I prefer the ligature.

THOMAS G. MORTON: My universal practice is the ligature for internal, and the ligature and excision for the external variety.

S. McL. TIFFANY: I probably use clamp and cautery as often as any other.

JOHN H. BRINTON: I prefer ligature for internal hemorrhoids. I use a linen cord soaked in sublimate solution, and when the hemorrhoid has a partial cutaneous skin covering I form a track with a knife in the skin covering, to divide nerves, and thus avoid pain after the old method.

JOSEPH D. BRYANT: Ligation with catgut.

DR. BODENHAMER: I consider ligation, if judiciously and properly applied, the simplest, safest, most certain and most effectual of all known methods. It has the recommendation, the advocacy and the indorsements (with few exceptions) of all the leading surgeons of Europe and America.

JOHN A. WEYTH: Allingham's operation—ether narcosis.

CHARLES B. KELSEY: I prefer the clamp and cautery to all other radical measures, as being less painful and giving a quicker recovery.

MR. ALLINGHAM: Ligature, with incision, for reasons given under the description of the operation.

The following general conclusions are drawn from recent literature, from the writer's personal experience and from an extended correspondence: (1) The principles of antisepsis should be carried out, as far as possible, in this as in all other surgical operations. (2) Local anesthesia is not to be relied upon in surgical procedures for the radical cure of hemorrhoids. (3) The injection method of treating hemorroidal tumors is not reliable, not safe, and not comparable with safer and surer methods. (4) Simple dilatation of the sphincters alone probably never cured a case of well developed hemorrhoidal tumors. (5) Mr. Allingham's operation by the ligature, with incision, is beyond a doubt the safest, most generally applicable, and yielding the best *permanent* results in the surgical treatment of internal hemorrhoidal disease.—G. H. KIRWAN, M. D., *Medical and Surgical Reporter*.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M.D., Sacramento, Cal.

Indications for the Use of Atropine.—Atropine, DR. LEPLAT says, has such a powerful influence upon the eye that its use should be regulated

by well determined special indications, and it should not be employed at random. The alkaloid dilates the pupil, paralyzes the accommodation, and augments the intra-ocular tension. At the same time that it dilates the pupil atropine diminishes the calibre of the vessels of the iris, thus producing anemia of that structure. Therefore, it is indicated in inflammation and congestion of the iris. In hyperemia of the iris there is pericorneal injection. It should, therefore, be used in cases of violent pericorneal injection in which conjunctival disease can be eliminated. It is not indicated in catarrhal troubles. In iritis a one per cent. solution of atropine should be frequently instilled, until the pupil is thoroughly dilated, then decrease the frequency of the instillations so as to maintain the effect. If the inflammation be very acute, and posterior synechiæ have already formed, it is necessary to proceed energetically; a quantity of the sulphate of atropine, as large as the head of a small pin, should be deposited in the inferior conjunctival cul-de-sac. Iritic congestion is often consequent upon corneal troubles, and is characterized by inactivity of the pupil. In keratitis, when the pupil is active, atropine is useless. In central perforating ulcers of the cornea, the pupil should be dilated to prevent the iris becoming engaged in the opening. In chronic iritis, where the pupil is deformed by extensive posterior synechia, it is important to keep up the influence of the atropine, to prevent the obliteration of the channels of communication between the anterior and posterior chambers. One or two drops of the solution should be instilled daily; to destroy adhesions the solid alkaloid should be employed. In hypermetropia, astigmatism and spasm of the ciliary muscles, atropine will be found useful. In these cases the patient often refuses correcting glasses until the muscular spasms have been overcome and kept paralyzed for some days. The glasses should be worn while the eyes are still under the influence of the alkaloid. Atropine is also employed to paralyze the accommodation in young subjects who are beginning to squint. Mydriatics have the power of increasing the tonicity of the eye, and should therefore be used with great prudence in the aged. An attack of glaucoma may be induced in an eye predisposed to that disease. The error of instilling atropine into an eye in the early stages of glaucoma, which has been mistaken for iritis, is not uncommon. In both diseases the iris may appear much obscured; in iritis the cloudiness of the aqueous causes the obstruction to the vision, while in the other affection the cornea loses its transparency. In acute glaucoma the cornea is slightly roughened with fine spots, somewhat gray and insensible. In iritis, on the contrary, it retains its polish and sensibility. The anterior chamber is of normal depth, or deeper in iritis and shallower in glaucoma. In one, the pupil is immobile and dilated, while in the other it is immobile and contracted. Finally, glaucoma is characterized by increased hardness of the eye ball. Guided by these symptoms, we can distinguish glaucoma and guard against prescribing atropine in this disease. In a certain number of old people, with contracted pupils, mydriasis will be necessary to enable an ophthalmoscopic examination to be made. For this purpose hematropine or cocaine should be used.—*Ann. de la Soc. Méd. Chir. de Liège.*

DERMATOLOGY AND VENEREAL DISEASES.

By G. L. Simmons, Jr., M.D., Sacramento, Cal.

Salicylate of Mercury in Venereal Diseases.—Szadek (*Monatsheft. f. Prakt. Dermatologie*, No. 10, 1888) found that in acute and subacute urethritis this remedy yielded in general good results. In the treatment of mild manifestations in early syphilis, it was of special value. No local or constitutional disturbances following its use have been observed by him. The following is employed for subcutaneous use:

℞—Hydrarg. Salicyl., - - 0.2
Mucilag. Gum. Arab., - 0.3
Aquæ Destill., - - 60.0 M.

Injections are made at intervals of two or three days, the number varying from six to twelve. Salicylate of mercury may likewise be successfully employed externally in luetic infiltrations and ulcerations.—*Centralbl. f. klin. Med.*, October 6, 1888.

The Abortive Treatment of Gonorrhea.—Dr. Mauriac, on the Treatment of Gonorrhea, concludes as follows: (1) The abortive treatment is indicated and has some chance of succeeding in acute gonorrhea only during the first hours of its outset. (2) All the attempts to cut short an attack of gonorrhea during its period of progression and when it reaches its height, are useless or dangerous—one obtains only delusive cures. (3) The antiseptic practice, at once (*d'amblée*) suggested by the microbian theory of gonorrhea, has, until now, only produced delusive results. (4) It is indispensable to submit acute gonorrhea to the antiphlogistic treatment until the almost complete disappearence of the inflammatory phenomena. It must proceed to the proper stage of maturity before any repressive medication should be resorted to. (5) This latter method yields decisive and durable results only in the involutive phases of the specific catarrh. (6) The agents of repressive medication are copaiba and cubebs internally, the sulphate of zinc in injections. (7) The balsam should be given first; it alone occasionally produces a definite cure. In the greater number of cases, while continuing its use, astringent injections may be used. (8) The duration of the repressive medication should be short; should it not soon yield the results expected of it, it must be given up and antiphlogistics resorted to. (9) It is by antiphlogistic medication that the treatment of acute gonorrhea imperfectly cured should be commenced. These cases which return almost incessantly are seldom or never subdued in a definite manner.—Paris Correspondent *Journal American Medical Association*, October 6, 1888.

MATERIA MEDICA AND THERAPEUTICS.

By Wm. Watt Kerr, M. A., M. B., C. M., Professor of Therapeutics, University of California, San Francisco.

Digitalis in Croupous Pneumonia.—Professor Petresco writes that pneumonia is one of the most prevalent maladies in the Roumanian army, and that during the last five years he has treated more than six hundred cases in the Military Hospital at Bucharest. In these cases he has given

an infusion of digitalis in doses of from 1 to 3 drachms in 24 hours, or a preparation consisting of an infusion containing 4 parts, by weight, of digitalis leaves, 200 parts water, and 40 parts syrup—a teaspoonful of this being given every half hour for three days. Through this treatment the author claims that the disease is cut short in three days, and the fever and all the physical signs disappear as if by enchantment. It is, however, only in consequence of these large doses of digitalis, given one after the other, that this result may be attained. The mortality in this disease treated in this manner is 1.22 per cent., while the results of all other modes of treatment give 15 or 30 per cent. The uncertainty which has accompanied this treatment in other hands is due to the small doses in which the drug was employed and the long intervals between them.—*Therapeutic Gazette.*

Phenacetin.—This new remedy very closely resembles antipyrin in its effects, but is more powerful as an analgesic and equally effective in reducing temperature, while it is not so liable to produce the scarlatiniform rash that so frequently follows the repeated administration of antipyrin. The average dose is about 8 grains. The drug is insoluble in water and the alcoholic solution contains so much of the solvent as to render it unfit for general use. It is, therefore, best to give it in powder form, which is free from taste and, at the same time, readily dissolved in the warm digestive juices. Larger doses, 10 to 15 grains, are necessary to produce the analgesic effects, and these are not to be expected before one or two hours. Its use is especially recommended in migraine and neuralgias; its only disadvantage being that in cases where the trouble is associated with nausea and vomiting, phenacetin, on account of its insolubility, cannot be given as an injection or enema. It is claimed to be of value even in chronic cases, one instance having been reported in which it cured lumbago of three years' standing.—*Boston Medical and Surgical Journal*, October 18, 1888.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, Cooper Medical College, San Francisco, Cal.

The Treatment of Uremia.—The treatment of this grave affection is systematized by DR. WILLIAM CARTER as follows: First—In cutting off one or another of the urinary poisons at their source. Under this head is recognized the great importance (*a*) of limiting potassium salts, both in food and medicine; (*b*) of employing the simplest and most easily assimilated diet, such as milk; (*c*) of bowel disinfection; (*d*) of maintaining at its best the functional activity of the liver; (*e*) of care in the nature of nutrient enemata when these are required. Second—In directly and indirectly withdrawing or diluting the poison, by (*a*) venesection; (*b*) purging; (*c*) sweating; and (*d*) transfusion. Third—In burning up the poison, by (*a*) active exercise; (*b*) the administration of oxygen or oxydizers. Fourth—In antagonizing the poison, or, at least, overcoming special symptoms. Reducing the above principles to practice, the potassium salts are substituted by sodium salts, as the latter have only $\frac{1}{40}$ of

the toxicity of the former. According to Bouchard $\frac{1}{3}$ of the total toxicity of normal urines is due to poisonous products, reabsorbed into the blood from the intestines, resulting from putrefactive changes of the food in the latter situation. The compact and small fecal residuum from milk, and the small proportion of potassium salts contained therein, emphasizes the great value of milk as an article of diet to the subject of Bright's disease. The best bowel disinfectants are those which pass through the intestines, unchanged, exercising their local effects on the way—and the employment of these is suggested for the purpose of cutting off one cause of indirect blood contamination at its source. Naphthalin, iodoform and animal charcoal, being among the least soluble of non-poisonous antiseptics, are recommended for the purpose indicated. If the poisons have already been absorbed or retained in sufficient quantity to produce convulsions or coma, then abstraction of blood or the removal of the poisons by organs compensatory to the kidney must be attempted. The good effects obtained from purgation and diaphoresis is also commented on. Morphine, though highly extolled by Drs. Loomis and Davis, of New York, as the most efficient agent when injected hypodermically for controlling uremic convulsions, requires, according to the author, to be used with very great caution. For the relief of uremic asthma, ozonic ether is the most useful agent.—*Medical Press and Circular*, Sept. 5, 1888.

The Exploring Needle in Diagnosis.—Dr. Herman M. Biggs concludes as follows, in a paper on the accidents incidental to the use of the exploring needle in diagnosis: (1) The employment of the exploring needle is not infrequently attended by considerable danger, and a number of deaths have directly resulted from its use. (2) The indiscriminate, careless and routine resort to exploration with a needle should be condemned. This procedure should not be resorted to without careful consideration of the conditions obtaining in each case, and the results that may follow the puncture. The site for the puncture should be thoughtfully chosen, the puncture carefully made with complete antiseptic precautions, and the smallest needle that will answer the purpose employed. (3) The puncture of collections of fluids with tense walls in relation with serous surfaces, should be, as far as possible, avoided; and, if it should be resorted to, sufficient fluid should be withdrawn to relieve the tension upon the walls of the sac. In many cases, certainly an exploratory operation would be attended by less danger. (4) In the introduction of the needle into deeply-seated infectious matter, the nature of the intervening tissue should be carefully considered. (5) The needle, before use, should always be thoroughly disinfected—preferably by heating in the flame of an alcohol lamp or a Bunsen burner. (6) The skin where the puncture is to be made should be rendered thoroughly aseptic, by first scrubbing with soap and water, and then washing with an antiseptic solution. (7) The dangers attending the use of this valuable adjunct in diagnosis should not in the slightest interfere with its employment in properly selected cases, where due precautions are observed as to its use.—*New York Medical Journal*, August 18, 1888.

Sacramento Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: DECEMBER, 1888.

THE COMMENCEMENTS.

The graduating exercises of the Cooper Medical College occurred on the evening of November 13th, in the spacious lecture hall of the college building, corner of Sacramento and Webster streets. The attendance was very large, After the rendering of a musical selection, and a prayer by the Rev. N. L. Rowell, D.D., the graduates were addressed by the President of the College, Prof. L. C. Lane, who, in conclusion, said that by virtue of their three years' course at the College he declared them competent and qualified to practise medicine, and conferred upon them the degree of Doctor of Medicine. The President then announced that the prize of $50, offered by the Alumni Association of the Cooper Medical College by Prof. A. Barkan, had been awarded to Dr. D. F. Ragan, of the class of '87, for the best essay dealing with the histories of twelve cases as observed in actual practice. Prof. C. N. Ellinwood delivered the valedictory address. Rev. W. H. Scudder then addressed the graduates in a happy and humorous strain. The exercises concluded with a benediction by the Rev. N. L. Rowell.

The following are the names of the graduating class: Effie Dean Worley, Minnie Greenstreet Worley, Mary Gertrude Page, Joseph Henry Campbell, Tennison Deane, Thomas Louis Mahoney, Jonathan Morffew Peel, Nathan Rosencrantz, George Rothganger, Frederick Henry Stahle, Ludwig Stammer, George Burbank Somers, John Bernard Tennent, Joseph Wolf, Jr.

The total number of students in attendance during the past session was 104, the number of matriculates being 52.

The commencement exercises of the Medical Department of the University of California were held on Friday evening, November

16th, in the Metropolitan Hall, the Hon. Horace Davis, President of the University, in the chair. Dr. Washington Ayer, Professor of Hygiene, delivered the address on behalf of the Faculty, in which he referred to the condition of medical education upon this coast, and the relations between the public and the medical profession. Particular stress was laid upon the necessity for a more thorough preliminary education in classics and the elements of science, as it was only upon such a solid foundation that a superstructure of intelligent medicine could be raised. The degrees were then conferred by the Hon. Horace Davis, who in his remarks to the graduates impressed upon them the seriousness of the step they were taking, and the responsibility that would devolve upon them. In the absence of Prof. R. Beverly Cole, on account of sickness, the Hippocratic oath was administered by Dr. Fish, Emeritus Professor of Physiology, who was the senior member of the Faculty present. An excellent orchestra, under the leadership of Mr. Louis Schmidt, performed some choice selections of music at intervals during the evening.

There were eighteen students in the senior class during the session, of whom the following eleven received the degree of M.D.: Monrove Elizabeth Alexander, John Henry Barbat, Ph. G., Rosamond Louise Cox, Nathan Park Dennis, James P. Hampston Dunn, S. B., Melvin Burnham Estes, Euclid Bernardo Frick, Albert Karl Happersberger, A. B., John Albert Noble, John Lee Kelly, James Taylor White.

The total number of students in attendance during the past session was 71, the number of matriculates being 35.

The commencement exercises of the Dental Department of the University of California were held November —, 1888. In the absence of any official information we are unable to give the particulars.

The commencement exercises of the Department of Pharmacy, University of California, were held at Odd-Fellows' Hall, November 20, 1888. S. H. Melvin, President of the College, said that he had much pleasure in welcoming his audience to the Sixteenth Annual Commencement. When the College opened in 1873, there

were but six similar institutions in the country; now there were twenty-five. The College was prosperous and owned its own building. The Hon. Horace Davis, President of the University, in conferring the degrees, alluded to the valuable aid which Stanford, Mills, Lick, Coggswell and others had rendered to the cause of education on the Pacific Coast. The College greatly needed a good laboratory, and he hoped that funds would be forthcoming to provide one. Frank W. Ralston, Ph. G., delivered the valedictory address. The prizes were then presented by Professor William M. Searby to the following students: First prize (gold medal), William K. Sanborn; second prize, Horatio B. Emerson; Alumni prize (books), William K. Sanborn; Junior prize, George J. Harvey.

The following were the graduates: Adolph G. Bussenius, John F. A. Delicat, Edward P. Driscoll, Horatio B. Emerson, George E. Flint, David L. Henderson, Charles C. Higgins, Harry D. Kelsey, James H. McCarthy, James J. Molony, Frank B. Petrie, Philip J. Perkins, Frank W. Ralston, George A. Root, William K. Sanborn, Ernest J. Thevenet, William H. Topley, Thomas J. White.

The total number of students attending the College during the past session was 90, the number of matriculates being 60.

The opening exercises of the fourth regular session of the College of Medicine of the University of Southern California were held at the College building, 219 Aliso street, Los Angeles, on October 10, 1888. The Rev. M. M. Bovard, President of the University, in addressing the class, alluded to the necessity of application on the part of the student so that a store of knowledge might be accumulated, which could be drawn upon in the hour of necessity. Prof. Walter Lindley in his address "The Physician Ever a Student," outlined the course of study to be pursued and enumerated the facilities for instruction and the ample material which would be provided. Prof. Joseph Kurtz, in addressing the class, warned them that in selecting the profession of medicine, they had undertaken an arduous task, and that unless they were strongly inclined to perform its exacting duties they had better "stop right here." Riches and renown came only to a few, and

then after years of waiting. Prof. J. P. Widney admonished the students to work, and impressed them with the value of oral instruction. Three years' work had been done and good results had been attained. All that was required for thorough medical and surgical education could be found within the walls of the school, and this fact had been recognized throughout the country.

At the close of the last session the graduating class (the first of the school) numbered 9 students; at the present session there was an increase of over 50 per cent. in the number of matriculates. Extensive alterations and additions have recently been completed, and the college is on a prosperous footing.

NOTES.

Alumni Association, Cooper Medical College.

At a meeting of the Alumni Association of the Cooper Medical College held in the College building November 13, 1888, the following were elected officers for the ensuing year: President, Albert Abrams, 1st Vice President, G. F. Hansen, 2d Vice President, S. Gallemire, Secretary, D. F. Ragan, Corresponding Secretary, M. M. Chipman.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting October 16th, 1888.

The President, J. R. LAINE, M. D., in the Chair.

The Treatment of Cystic Disease in the Female.—DR. MARY J. MAGILL read a paper upon this subject. In treating this disease it was first of importance to ascertain the cause, to do which it was necessary to bear in mind the anatomy, anatomical relations and the functions of the diseased organ. The capacity of the female bladder was greater than that of the male. The difference in the anatomical relations of the neck and trigone of the bladder in men and in women give rise to very different habits. In the male these parts are firmly supported, so that as the organ fills with urine distension takes place only in the upward direction. Here the weight of the intestines is encountered and overdistension becomes painful, much sooner than in the female. In the latter a greater accommodation for distension is obtained by the dilatation of the unsupported lower wall, and if the vagina has been distended by child-bearing the capacity is further increased. Owing to social customs women empty the bladder less frequently than men, and so become habituated to using this additional space at the expense of the health of the organ. By repeated distension a cystocele is formed in which a residue of urine remains after each evacuation, decomposes and initiates cystitis. The Doctor had

seen two patients advanced in years and suffering from diabetes; in each case a large cystocele occupied the anterior wall of the vagina, protruding externally to about the size of an egg. The perinei were intact. In one case an operation was performed which reduced the size of the tumor. According to Coulson the active agent in preventing the escape of the urine, is the sphincter vesicæ, formed by the middle layer of the muscular coat, and described by some as a band of muscular fibres ⅛ to ½ inch in thickness. Knott, on the contrary, claims that the constrictor urethræ is the restraining force, as in a case of vesico-vaginal fistula; where the vesical sphincter was destroyed the urine could still be retained. The mucous coat of the bladder which consists of basement membrane supporting three layers of epithelium is not attached closely to the muscular layer, except at the neck and about the orifices of the ureters. Jueril claims to have found an "inter-ureteric ligament" in the ends of which the orifices of the ureters are imbedded. He states that the action of this structure prevents regurgitation of urine into the ureters. The muscular slips which in the male arise from the vesical sphincter and are inserted into the orifices of the ureters, being imperfectly developed in the female. In women the bladder is distended in the transverse direction, thus drawing the inter-ureteric ligament taut and closing the orifices of the ureters. The bladder does not absorb unless the mucous membrane becomes abraded, when absorption takes place very rapidly. The non-absorbtive power of the bladder is denied by some authorities who assert that the watery constituents of the urine are absorbed. L. Schafer, who supports this proposition, has found that when vesico-vaginal fistula is produced, in animals, there is an increase of from four to five per cent. in the quantity of urine excreted. The blood supply of the bladder, which is abundant, is derived from the superior middle and inferior vesical, with branches from the uterine arteries. The veins are numerous and large, anastomosing freely and communicating with those from the uterus and rectum. The nerve supply is from the third, fourth and sometimes the second sacral nerves, the filaments terminating principally about the neck of the bladder. The hypogastric plexus of the sympathetic, which also supplies the vagina, uterus and rectum, sends branches to the bladder, which are mainly distributed to the upper portion of that organ. Functional disturbance of the bladder is the most common form of disease, and if untreated may become organic. This disturbance may accompany lesions of the brain and spinal cord, any acute or chronic disease of the general system, diseases of neighboring organs, displacements of the uterus and malpositions of the bladder itself. In this class of cases general attention to diet and hygienic surroundings is demanded. Milk is employed as a food and as a demulcent, and flaxseed tea is given freely. Irritating food is prohibited. Constipation is usually present, a useful laxative is cream of tartar given daily in a glass of lemonade. In the use of drugs the indications of each case should be considered. Irritation must be allayed by sedatives. Anesthesia is to be met by local and general stimulation. Basham's iron mixture as a diuretic tonic, acetate of potash, belladonna and infusions of buchu and digitalis are useful. When the urine is alkaline dilute nitric acid is serviceable. The treatment must, in a great measure, be guided by the character of the urine. Locally, antiseptic and astringent irrigations, galvanism and dilatation of the urethra have been used.

The following cases are cited as illustrative of the general principles governing the treatment of this disease;

Case I.—A. B——, æt. 25 years; married; two children; of nervous temperament; anemic; constipation the rule; obliged to empty the bladder hourly or half hourly; uterus anteverted and prolapsed. A mixture of acetate of potash, belladonna and infusion of buchu with demulcents, and a milk diet was ordered. Morphine was given on retiring to produce

sleep. Under this treatment the vesical irritability was partially allayed, when tonics of quinine, iron and cod liver oil were given. After a few weeks the symptoms returned as severly as ever. The urine was normal in color and specific gravity, and increased in quantity, but contained no sugar. There was a small deposit of mucus on standing. The bladder was irrigated with a tepid solution of nitrate of silver gr. 2 to ℥i of water and relief was obtained for about two weeks, when the symptoms again returned. A galvanic current of two cells was twice applied by placing the negative pole over the hypogastrium and passing the positive through the urethra to the neck of the bladder; this was followed by another period of relief, when a relapse occurred. It was then determined to dilate the urethra and neck of the bladder. Using Sims' small dilator the urethra was stretched half an inch, the operation being repeated the week following with entire success, as the trouble had not returned a year afterwards.

Case II.—C. D——, a pale, neurotic woman, in whom an attack of acute cystitis supervened upon a severe fright. Irritation of the neck of the bladder remained after the acute stage. The urethra was dilated and the bladder irrigated with a 5 per cent. carbolic solution. The disorder was immediately relieved.*

Case III.—E. F——, a healthy woman. Acute cystitis followed retention of urine for thirty-six hours; about one gallon of urine was removed. No inflammatory symptoms were present, but demulcents and a mild diuretic mixture were given as a precautionary measure. Three weeks later the urine became scanty, high colored and muco-purulent; the specific gravity was also increased. The bladder was irrigated with a solution of nitrate of silver gr. 10 ℥i of water, followed by a weak solution of chloride of sodium. Two irrigations were sufficient to effect a cure.

Case IV.—G. H——, æt. 26 years; married; two children; strong and healthy. Ten months previously had crossed the Atlantic, since which date she has not menstruated. Was apparently having labor pains. On inquiry, ascertained that she had a chill the day before, and that there had been pain and burning on micturition for several weeks past. Urine scanty and high colored, with copious deposit. Pain was constant, with exacerbations. Bimanual examination determined that pregnancy had not advanced beyond the sixth month. Examination of the urine showed that the specific gravity was high, reaction strongly alkaline; pus, mucus, blood corpuscles and earthy phosphates were present. Morphine was given to relieve pain, and hot fomentations were applied to the hypogastrium. Patient was placed on milk diet, with demulcents and mild laxatives, and the following prescription: Acid. nitric. dil. ℥iii; Tr. hyoscyam. ℥iv; Infus. buchu ad ℥iv. ℥iv every 4 hours. Recovery was rapid and complete.

In chronic cystitis, following gonorrheal infection, the author had not found irrigations of much use, except for the purpose of cleansing the bladder. Some authorities spoke very highly of injections of hydrastine and liquor potassæ. The following combination had been very serviceable: Ol. Cubeb., Ol. Santal., Ol. Copaib- aa. ℥iii; Liq. Pot. ℥iss; Syr. Acacia, Aq. Anis. aa. ℥iiiss. ℥ii every 4 hours. In chronic cystitis occurring in a subject with tertiary syphilis, irrigation had been disadvantageous, constitutional treatment being more efficient.

Dr. W. A. Briggs, in opening the discussion, said: The first point in the treatment of cystic diseases is to determine the etiology. This must be done in order to remove the cause. A cystocle should be rectified and

*"I believe that in both these cases the nerve filaments supplying the neck of the bladder and the urethra were paralyzed by the stretching, and remained so until the organ had recovered its normal tone."

displacements of contiguous organs should be corrected. These causes must all be removed before other treatment is resorted to. In the treatment of cystic diseases he had not much faith in the use of demulcent drinks—flaxseed tea, etc.—as recommended by the author. He believed that these potions had not nearly as good an effect on the mucous membrane of the bladder as milk or pure water. Large quantities of milk were superior to any other fluid. It was important to increase the flow of urine. He frequently used "Basham's Mixture" (iron, copaiba and oil of sandal wood) to effect this end. The bladder should have as much rest as possible. Antiseptic and astringent injections are very valuable, especially those of nitrate of silver—½ to 1 per cent. solution. It is important to empty the bladder frequently where there is a cystocele. In the cystitis of pregnant women attended by hemorrhage, he had derived no benefit from opium, but large doses of antipyrin had been followed by good results.

Dr. W. R. Cluness: It was important in all forms of cystitis to ascertain the cause, the most prominent being retention of urine. This was especially true in the acute cystitis of women who had borne children. A cysto-vaginocele is almost the first effect of this cause. In the treatment of the disease secure the free exit of the urine; evacuate the bladder with a soft rubber catheter; dilate the urethra gradually with the ordinary male nickel-plated sound; keep the urine in a natural condition, ensuring free evacuation by mechanical means if necessary. He believed in the free use of water internally, particularly in chronic cases. In this class of cases he used an injection of nitrate of silver gr. x to ℥i of water. The injection should be made through an elastic catheter about every fifth day. He also used a two per cent. solution of carbolic acid, night and morning, and had often found a four per cent. solution of acetate of lead to be effective. He frequently introduced a glass pessary into the vagina to maintain a proper support of the bladder. Alcoholic drinks and rich foods should be avoided, and the patient should be induced to take plenty of rest. As a diuretic, he relied mainly on the tincture of the perchloride of iron.

Dr. H. L. Nichols believed in using demulcent drinks, particularly flaxseed tea. When the case has become convalescent, he did not think it well to have the urine voided too frequently. He regarded frequent micturition as an irritant rather than a sedative.

Dr. W. F. Wiard remembered a case in which there was a profuse muco-purulent sanious discharge from the bladder. He sent a specimen of the urine to a celebrated analyst in New York, who made a diagnosis of hemorrhoids of the bladder.

Dr. T. W. Huntington believed that perfect drainage and attention to the secretions was the secret of success in these cases.

Dr. G. A. White believed in irrigation with antiseptics, especially nitrate of silver. He preferred a strong solution used infrequently.

Dr. I. E. Oatman said that a common cause of cystitis was displacement of the uterus. Anteflexion most always produced pressure upon the fundus of the bladder. Retroflexion would also cause great trouble by pressing upon the neck of the bladder. If these displacements were neglected or overlooked, chronic cystitis resulted. The displacement of the uterus was usually the result of inflammation of the os uteri from laceration in child-birth. In this case, by treating the inflamed uterus and relieving the pressure upon the bladder, you will effect, in a great measure, the cure of the latter organ. In washing out the bladder, he used a strong solution of nitrate of silver, injecting about ℥ii and allowing it to remain four minutes; after this he irrigated the bladder with warm, strained flaxseed tea. This procedure relieved the pain of the silver solution. He never treated the bladder until uterine displacements and their causes had been relieved.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting October 9, 1888.

T. J. Le Tourneux, M. D., in the Chair.

Cases of Abdominal Section.—Dr. Clinton Cushing reported several cases of abdominal section. In the first case the ovaries and tubes were removed on account of gonorrheal ovaritis and salpingitis. The case was interesting in regard to the etiology of gonorrhea, as the husband was suffering from this disease, and the gonococcus was found both in the discharge from his urethra and in the Fallopian tubes removed from the patient. The ovaries and tubes contained a large quantity of pus, and there was also a pelvis abscess. The patient completely recovered. The second case, Mrs. W——, aged 35 years, had suffered from dysmenorrhea and frequent attacks of pelvic cellulitis for five years. On examination, an elastic tumor was found in the left ovarian region, which abdominal section proved to be an intra-ligamentous cyst. This was emptied, drawn up to the opening and dissected out, some pus escaping into the abdominal cavity during the operation. The right ovary, which was also cystic in character, was removed. Some fever followed, but after reopening the abdominal cavity and washing it out with a solution of hydro-napthol, this disappeared and the patient recovered. The third case was a simple ovarian tumor of the left side, full of colloid material, which was removed through a two-inch incision. Speedy recovery. The fourth case was one of tubercular peritonitis. An exploratory incision showed every part of the peritoneum to be studded with tubercles, and the abdomen to contain fully two quarts of pus. The cavity was washed out with hydro-napthol and dusted with iodoform. The patient died from exhaustion some months afterwards. He would recommend this operation only in cases where the lung symptoms were absent or very slight, and where the general health was good. The fifth case was one of cystic tumor adherent to the uterus, and closely resembling a fibro-cyst; but as the ovary was absent from that side, probably the tumor was the remains of an ovary which had become adherent to the uterus by former inflammation and undergone a subsequent cystic degeneration.

Dr. W. F. McNutt had removed four tumors within the last few months, the only one of particular interest being one in which no pedicle could be found, so that the tumor was adherent to the side of the uterus and floor of the pelvis. He ligated and divided the attachment, leaving a large stump, part of which bled freely but was controlled by the application of Monsell's salt. The woman made a good recovery. He thought it would be difficult to diagnose tubercular peritonitis with sufficient accuracy to warrant operation unless the lungs were involved.

Dr. D. W. Montgomery said that after examining the tumor removed from Dr. Cushing's second case he found that it was not a simple ovarian cyst, but a papillary cystoma.

Dr. J. N. Rosenstirn said that in operations for tubercular peritonitis it was rather unusual to leave a drainage tube in the wound, as reported by Dr. Cushing. He was of opinion that the tube might act as an irritant and contribute to unfavorable results.

Dr. Cushing in reply said that the usual operative procedure in cases such as that described by Dr. McNutt, was enucleation and not ligation. Regarding tubercular peritonitis, he believed that the diagnosis was always difficult, and in most cases could be arrived at only by the exclusion of everything but pus or tubercle, and in either of these an incision is indicated. He left a drainage tube in, because he believed that the benefit from such operations was due to exposure of the tubercular masses to the air, and this could be better attained by the use of a drainage tube to remove all serum.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Antiseptic Dressings during the Puerperium.—Treatment of Verbal Deafness.—Electricity in Intestinal Obstruction.—Action of Vichy Water.—Warm Water Injections in Epithelioma of the Cervix.

Dr. Louis Roulin, struck by the risk attending intrauterine, and even vaginal injections, has attempted to find a method of antiseptic dressing for women during confinement, which would be a substitute for the injections usually employed. He proceeds in the following manner: After washing his hands in a one per cent. solution of chloral, he washes the genital and adjacent regions with the same solution previous to delivery. After delivery the operation is repeated. A dressing of one or two layers of gauze, steeped in salol, is then applied to the vulva. This gauze is covered with a layer of absorbent cotton, previously saturated with the chloral solution and well wrung out. The dressing is repeated every six hours. M. Roulin has employed this method in about eight cases, with most satisfactory results. Delivery was not followed by any accidents whatever, and the lochia were free from odor. The method is simple and absolutely harmless. In cases of retention of the placenta, or puerperal fever, it would, of course, be insufficient, and intrauterine injections must be resorted to. M. Charpentier regards chloral as without any antiseptic action; M. Périer considers that it has a very effectual antiseptic action, and invariably employs it in operations in the region of the mucous membranes, because it is completely innocuous. M. Roulin shares M. Périer's opinion, and asserts that in employing the one per cent. chloral solution he has never met with toxic or other symptoms which are observed after small doses of carbolic acid or of sublimate.

M. Pinel has studied verbal deafness with the aid of a vibrating screen. The lower portion of this screen is held in the hand and the upper portion is pressed between the teeth. The phonic vibrations are communicated to the auditory centre, when the sound is directed perpendicularly on the screen. When deafness arises from some lesion in the external ear, or even in the tympanum, the sound is apparently communicated by means of the dental nerves of the upper and lower maxillary bones. M. Pinel has constructed a kind of electric screen, by means of which the sound appears to be propagated by the action of the voice on the buccal walls of the upper palate and pharynx. This would show that children who are born deaf and dumb may be taught to speak. The electric apparatus, acting on the spheno-temporal convolutions, communicates a sound, which, by dint of education, may be comprehended. With the improvement recently made in the phonograph, deaf and dumb children may be taught the intonation of letters, words and sentences. M. Pinel has also made certain investigations concerning verbal deafness with photographs of the fundus of the eye, with a view of discovering the traces of the action of isolated rays of light obtained by the spectrum. In order to obtain these photographs, he introduced a tiny photographic apparatus into the centre of the reflecting mirror of an ordinary ophthalmoscope.

At a recent meeting of the Academie de Médecine, M. Larat made the following interesting communication on the treatment of intestinal occlusion by electric stimulation. The first successful instance of this treatment was a case treated by Duchenne, of Boulogne, thirty years ago, in which electricity was directly applied to the intestine. But although occasionally successful, this method is frequently a failure. Galvanic interruptions, however, invariably provoke energetic peristaltic contractions, especially if a sufficiently strong continuous current is used. The amount of force, however, if excessive, frequently produces eschars. M.

Larat reported nineteen cases, in which he had employed M. Boudet's method, which consists of introducing a quantity of salt water (which represents the intestinal pole) into the rectum, by means of an ordinary irrigator and an india rubber sound, furnished with a metallic mandrel, which is attached to a wire leading to the battery. The diagnosis of the cause of occlusion is always a difficult matter. In nineteen cases the diagnosis was only correctly established three times, before intervention. Purgatives are quite useless when the intestine has become impermeable; if repeated they frequently produce vomiting. The effects of electric stimulation, when this treatment is successful, are manifested in different ways. Sometimes the action of the bowels is sudden and complete and the discharge is gaseous as well as fecal. In other cases it is slow and gradual and a complete clearance is only effected after several days. But in all cases the patient is considerably relieved and serious symptoms disappear immediately the passage is opened. Electricity must be applied four or five times before a successful result can be expected. In ten cases out of sixteen it should be effectual. M. Larat, therefore, concludes that electric stimulation should be employed in every case where medical treatment has failed. No time should be lost in applying it; the sooner it is employed the more likely it is to be successful, and in case of failure surgical means may be resorted to.

Dr. Frémont, consulting physician at Vichy, has just completed a work on the action of Vichy water on the nutrition. It appears that the effects of this water are particularly marked in the case of certain affections. The author bases all his conclusions on the most precise system of investigation. He has, therefore, been enabled to determine in an accurate manner the action of Vichy water in certain diseases, which demand the use of alkalies, as dyspepsia, biliary lithiasis, affections of the liver, diabetes, gout and gravel. Certain observations would prove that albuminuria and some cardiac affections are benefited by Vichy water. As a rule, it stimulates nutrition, increases the richness of the blood, the quantity of hemoglobin, and aids in the reduction of oxyhemoglobin. M. Frémont has also examined the bacteria contained in the warm springs of La Grande Grille and L'Hôpital, and made experiments on artificial digestion with the bacillæ, which lead him to conclude that Vichy water transforms albuminoids into peptones. Hence its beneficial action on gastro-intestinal affections. A considerable number of observations serve to demonstrate the accuracy of M. Frémont's different conclusions.

From numerous observations, M. de Tornery has arrived at the following conclusions concerning prolonged injection of warm water in epithelioma of the neck of the uterus. (1) Injection at a temperature of 39° to 40° C. (102.2°—104° F.) prolonged during half an hour or more; morn- and afternoon, disinfect the vagina completely by cleansing the canal and reducing the ichorous secretion. (2) They reduce the loss of blood, which causes a notable improvement in the patient's general condition; the hemostatic action of warm water checks the hemorrhage. (3) In most cases the pain is modified and morphine may be dispensed with. The development of the tumor is, moreover, frequently retarded.

PARIS, October 20, 1888.

BERLIN.

Number of Medical Students.—Professors.—Expenses of Living.—The Clinics.—Arrangement of Lectures.—Mackenzie's Book.—Honor to Prof. Virchow.—Dr. von Lauer.—Public Water Closets.—Prostitution

With a population of 1,300,000 souls, a garrison of 21,000 soldiers within its limits to protect its political interests, Berlin, the capital of United Germany, has but 1,100 students enrolled in medicine. Wurzberg, in southeastern Germany, with a population of 55,000, possesses 973. Munich,

only one-sixth the size of Berlin, has almost 1,500, while Vienna, which falls short some 300,000 souls, contains twice the number of medical students. The reasons of this disproportion are difficult to see. Berlin has had, and still possesses, eminent medical professors: Virchow, Du Bois-Raymond, Olshausen, Gusserow and Martin, Waldeyer, Koch, Liebrich, and Leyden, while among the staff of assistants there are many well known names: Senator, medicine; Tobold and Krause, laryngology; Remak, electricity; Winter, gynecology; Schweninger, dermatology; Braman, surgery. With such men in the lead, the faculty of medicine of some hundred and twelve members, cannot be slow in advancing.

In the matter of expense, Berlin should be a favorite place for the student. None of the large medical centres are so reasonable in this respect. Vienna and London are much more expensive; Paris only a trifle more so. Fees for special courses in all these cities are also higher than in Berlin. The student here, who speaks the language and is tolerably familiar with university customs, can live comfortably at the following monthly rates (University Calender, 1888): Room, 15 to 30 minutes from all clinics, $6 to $10; service, 75 cents; morning coffee and rolls, $1.50 to $2.25; daily heating, 5 to 8 cents; mid-day meal, by the month, $4 to $8. Clothing is cheap; medical publications dear. A Sick Union has been established, by which members receive medicine and medical attendance on payment of one mark (24 cents) semi-annually.

Medical study in Berlin is under the control of one faculty, that of the Frederick William University, which is divided into professors—Honorary, Extraordinary, and Ordinary and Docents. These control the Royal Charity, with 1,700 beds, the Royal Clinic, 275 beds, and the Royal Frauen Clinic, 200 beds, with attached out-patient departments. They are within a stone's throw of each other and near the heart of Berlin. The Polyclinic, also a large structure, but devoted entirely to out-patients, lies close to the other three institutions. These Clinics present to the student an average of 4,000 cases daily. Here are the principal amphitheatres. But in addition, and at some distance, are the City Hospital on the Frederickshain, with 700 beds; the City Hospital, Moabit, 750 beds; The House of Bethany, 325 beds; Augusta Hospital, 200 beds; Jewish Hospital, 150 beds; Catholic Hospital, 300 beds; Elizabeth Hospital, 200 beds, and the Lazarette, 150 beds. In private hands are some dozen other institutions, of more or less pretension, numbering some 1,500 beds; all these give private courses. Visitors to the hospitals of Berlin are courteously received and shown the workings of the charity.

Of the principal clinics, the Royal Charity is the largest and oldest; its buildings a mixture of ancient and modern. The medical and surgical wards are in the older buildings while the newer structures, with every improvement in ventilation, heating, light and sanitation, are occupied by Gusserow's wards, for child-birth and gynecology. The amphitheatres for the various clinics are admirably appointed. On the grounds of this charity stands the stone Pathological Institute of Virchow, still actively supervised by the eminent pathologist. Three new buildings are soon to be completed, for Diseases of the Skin (Lewin & Schweninger), the Polyclinic and a Bacteriological Laboratory under Koch. The Royal Clinic, close to the Royal Charity, is a grand structure, on the bank of the Spree. Its buildings of pressed brick with colored trimmings surround a quadrangle on three sides, the fourth bounded by the busy river. Within the quadrangle is a large main building and two wings, devoted to surgery, the main building containing an amphitheatre for 300 spectators. Here von Bergman operates, the busts of his illustrious predecessors in this clinic, von Graefe, Dieffenbach and von Langenbeck, looking down upon him. Yet, admirably appointed as the Royal Clinic is, we turn, for greater perfection in hospital construction, to the splendid series of buildings constituting the Royal University Frauen Clinic, so lately controlled

by the lamented Shröder. It is constructed of pressed and colored brick, on the mixed pavilion and corridor plan. Every device that can contribute to the health and comfort of the wards has been utilized. There is a special salon for abdominal operations, with special antiseptic safeguards. To this general admittance is denied. The amphitheatre, with seats for 150 students, is richly lighted by a large side window and skylight. An elevator is also provided for the better transportation of the patients from floor to floor. Just across the river, and in easy distance from all these clinics, is the Medical Polyclinic, at present in a somewhat ancient, though spacious abode. Thus the clinical advantages of Berlin are conveniently situated and the student loses no time in alternating from one to another, a feature of medical study wofully lacking in London, if one wishes to go out of his own school.

The arrangement of lectures for this semestre is apparently not the best that could be devised. Monday and Wednesday there are comparatively few lectures, while Tuesday, Thursday and Friday are extremely crowded. Lectures frequently continue until ten o'clock at night.

Medical Berlin is all agog over the expected appearance of Mackenzie's History of Fredrick the Third's Illness. All the booksellers have the announcement of the publication—some with an apology for the sale. It has recently been announced that on the 28th of May, a short time before his death, the Emperor bestowed upon Prof. Virchow, in a special private audience, the order of the Red Eagle.

Dr. von Lauer, for forty years the body physician of the aged Emperor William, of Germany, celebrated, on October 10th, the eightieth anniversary of his birth and the sixtieth anniversary of his medical life. He holds the highest medical office in the army—the rank of General Lieutenant, with the title of "Excellency."

A feature of Berlin, as well as of most of the German cities, is the system of public water closets—neat little pavilions, erected at intervals throughout the city. Each contains several closets of the first and second class. The first class adds a wash-stand, looking glass, clean towel, and prepared paper to the comforts of the second class. For these but 10 pfennig ($2\frac{1}{2}$ cents) is charged, while for the second class 5 pfennig (or $1\frac{1}{4}$ cents).

Berlin forbids all houses of prostitution. In consequence the streets, railway stations, popular concert halls, theatres and cafés are frequented by an undesirable class of women. The vigilant eye of the police suppress too great freedom of action, yet the element of immorality is prominent. This absence of public houses is due to the efforts of the aged Kaiserin Augusta, now 80 years old, who hoped by their suppression to root out this social evil. The failure of the plan is but too apparent to all who visit Berlin. With her death a return will doubtless be made to the old order of affairs.

G. L. Simmons, Jr.

Berlin, October 7, 1888.

CORRESPONDENCE.

Dilatation in Dysmenorrhea.

Dear Sir: Your issue of November honors me by the publication of one of my clinical lectures, viz: one on the *Cure of Dysmenorrhea;* but it contains an error calculated to do mischief, and I therefore beg permission to correct it.

Your reporter states that for the cure of dysmenorrhea I open my powerful dilator to its "full capacity." This is not so; for the full capacity of this instrument would stretch the cervical canal one inch and a half, and this degree of dilatation I never resort to, except in hemorrhagic cases, or in others in which some intrauterine growth is suspected, and the fin-

ger must enter the uterine cavity. In cases of pure and simple dysmenorrhea, I never screw the handles home, but only far enough to open the blades one inch and a quarter, and up to this limit the vast majority of my dilatations have been made. In a very few exceptional cases of small or infantile cervix, the dilatation has been limited to one inch.

Another essential point, overlooked by the reporter, is the fact that so long as the dilator is *in situ*, I fill up the lower lumen of the speculum with a 1:1000 solution of corrosive sublimate, or with a 5 per cent. solution of carbolic acid, so that the cervix with its dilating canal is emersed for several minutes in a strong antiseptic bath. When the dilator is removed, the vagina is dried, and a 10-grain iodoform suppository slipped in.

Thus far I have dilated the cervical canal three hundred and twenty-two times for dysmenorrhea, not only without doing any serious harm, but with almost invariable and permanent relief.

Very truly yours, WILLIAM GOODELL, M. D.

PHILADELPHIA, Nov. 13, 1888.

PUBLIC HEALTH.

By W. R. CLUNESS, M. A., M. D., Sacramento, Cal.

Mortality.—The deaths registered in 81 town districts of the State during the past month, in a population of 733,000, correspond to an annual rate of 14.86 a thousand, the total mortality having been 908. 164 deaths were due to zymotic diseases, giving an annual death rate of 2.73 a thousand. Of these 40 resulted from diphtheria, 22 from diarrhea and dysentery, 32 from cholera infantum, 38 from typhoid fever, 6 from typho-malarial fever, 6 from remittent fever, 12 from cerebro-spinal fever, 3 from scarlet fever, 1 from measles, 2 from small-pox, and 2 from whooping cough. 215 deaths were attributed to diseases of the respiratory organs, giving an annual rate of 3.52. Of these 145 were due to consumption, 47 to pneumonia, 15 to acute bronchitis, and 8 to pulmonary congestion; 55 deaths resulted from disease of the heart. The average annual death rate from all causes, occurring in the ten largest cities and towns in the State, and representing a population of 570,000, was 14.46, being a fraction less than the death rate for the month throughout the State. The highest death rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco, it having been 18.40; the lowest from San Diego. the rate having been but 6.

METEOROLOGY.

By J. W. ROBERTSON, B. A., M. D., Assistant Physician to the State Asylum for Insane, Napa, Cal.

Temperature.—Mild and delightful weather characterized the month of October. The temperature of the valley belt, which ranged high during the summer months, was decidedly moderated, and varied between 64° and 68°, closely approximating that of the Coast. There were a few days during which a hot, dry, north wind prevailed and brought with it the usual bronchial and laryngeal irritations.

Rainfall.—As a rule, the wet season begins in this month, and at least one well pronounced storm occurs which clears the six-months accumulation of dust and purifies the atmosphere. Though the signs were propitious and there was every indication of falling weather, there was but a trace of rain noted at the stations in Central and Northern California. Further south the rainfall was more pronounced.

California—Tabular Statement for October, 1888.

STATIONS.	Temperature.						Rainfall.		Mean Relative Humidity	Weather.			Wind.	Furnished by—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No. of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn.....Cal.	64.2	91.0	46.0	.....	.....	.....	.....	0.00	.....	.....	.....	.....	S.	Southern Pacific Co.
Colfax..... "	60.9	88.0	44.0	.....	.....	.....	.....	0.10	.....	.....	.....	.....	N.	" " "
Eureka..... "	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Signal Service U.S.A.
Fresno..... "	66.2	93.5	41.0	82.3	50.7	31.6	0	0.00	59.0	27	4	0	NW.	" " "
Keeler..... "	64.4	85.1	47.0	76.5	53.9	22.6	0	0.00	34.0	26	3	2	N.	" " "
Los Angeles.... "	61.9	98.0	44.0	77.2	54.8	22.4	3	0.40	82.3	16	10	5	W.	" " "
Monterey ..... "	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Southern Pacific Co.
Napa..... "	59.3	81.0	42.0	70.0	48.7	21.2	0	0.00	.....	17	13	1	S.	Sta. Napa Ins. Asylum
Oakland..... "	60.2	82.0	46.0	.....	.....	14.6	2	0.06	83.6	18	9	4	SW.	J. B. Trembley, M.D.
Paso Robles.... "	60.4	94.0	35.0	.....	.....	.....	.....	0.00	.....	.....	.....	.....	W.	Southern Pacific Co.
Red Bluff..... "	68.2	92.0	44.0	79.1	54.6	24.5	0	trace	38.0	26	5	0	N.	Signal Service U.S.A.
Sacramento. ... "	64.2	91.5	40.0	79.7	50.8	28.9	0	0.00	62.0	28	3	0	SE.	" " "
San Diego. ..... "	63.5	80.0	53.0	70.5	59.4	11.1	3	0.26	90.6	15	4	12	SW.	" " "
San Francisco.. "	58.6	86.8	49.5	69.4	53.9	15.6	4	0.03	78.2	14	14	3	W.	" " "
Santa Barbara.. "	63 5	94.8	50.5	72.0	55.0	17.0	2	0.07	76 0	22	4	5	W.	Hugh D. Vail.
Santa Cruz "	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Southern Pacific Co.
Yuma.....A. T.	73.9	105.1	49.0	90.5	59.3	31.2	3	0.99	56.3	25	4	2	E.	Signal Service U.S.A.

Blank (.....) indicates data missing.

Clear Day—One on which cloudiness is 3 or less on a scale of 10. Fair Day—One on which cloudiness is from 3 to 7. Cloudy Day—One on which cloudiness is over 7.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At a special meeting of the Board of Examiners, held October 22, 1888, the following physicians were granted certificates to practise medicine and surgery in this State:

Charlotte Allen, Los Angeles; M. Dep. Univ. of Michigan, June 26, '79.
Carl Adam Beck, San Francisco; M. Dep. State Univ. of Iowa, Mar. 7, '88.
Henry Edw. Crepin, San Diego; Coll. of Phys. and Surgs. of Chicago, Ill., Feb. 23, '86.
Edw. P. H. Griswold, Los Angeles; M. Dep. Univ. of New York, Feb. 19, '78.
Sterling C. Newton, East Los Angeles; Berkshire M. Coll., Mass., Nov. 21, '54.
John Samuel Sargent, Fresno; The Coll. of Phys. and Surgs., Ill., Feb. 21, '87.
Alfred A. Stoneberger, San Francisco; M. Coll. of the Pacific, Cal., Nov. 8, '81.
Roland Edgar Woodward, San Diego; M. Dep. Univ. of Georgetown, D. C., Mar. 3, '64.
George F. Wright, San Diego; Miami M. Coll., Ohio, Feb. 28, '73.

The following names were rejected on the ground of insufficient credentials: Theo. E. Bennett, Los Angeles; Garcia de Leon, San Diego.

In place of Dr. Plummer, whose resignation was accepted, Dr. Winslow Anderson was appointed.

CHARLES E. BLAKE, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from Oct. 16th, to Nov. 16th 1888.

Captain Leonard Y. Loring, Assistant Surgeon, to be Surgeon, with the rank of Major, Oct. 9, 1888, *vice* Meacham, deceased.

Captain William H. Arthur, Assistant Surgeon, is relieved from duty at Fort Bowie, Arizona, and will report in person to the commanding officer Fort Bayard, New Mexico, for duty at that post. S. O. 250, A. G. O., Oct. 22, 1888.

Colonel Elisha I. Bailey, Surgeon, and Captain John J. Cochran, Assistant Surgeon, detailed for duty on Army Retiring Board to meet at San Francisco, Cal., for the examination of such officers as may be ordered before it. S. O. 253, A. G. O., Oct. 30, 1888.

Captain Norton Strong, Assistant Surgeon, is relieved from duty in the Department of Arizona, and will report in person to the commanding officer Fort Schuyler, New York, for duty at that post, and by letter to the Commanding General, Division of the Atlantic. S. O. 255, A. G. O., Nov. 1, 1888.

Lieut. Colonel Basil Norris, Surgeon, will be relieved from duty in the Department of the Columbia by the Commanding General of that department, and will report in person on or before Nov. 14, 1888, to the Commanding General, Division of the Pacific, for duty as Medical Director of that division and of the Department of California. S. O. 255, A. G. O., Nov. 1, 1888.

Lieut. Colonel Charles T. Alexander, Surgeon, is relieved from further duty in the Department of Dakota, and will report in person to the commanding general, Department of the Columbia, for duty as Medical Director of that Department. S. O. 255, A. G. O., Nov. 1, 1888.

Captain John J. Cochran, Assistant Surgeon, is relieved from temporary duty at Headquarters Division of the Pacific, and will report in person to the commanding officer Fort Adams, R. I., for duty at that post. S. O. 256, A. G. O., Nov. 2, 1888.

Assistant Surgeon W. H. Arthur, upon being relieved by Acting Assistant Surgeon J. L. Ord, will proceed to comply with Par. 21, S. O. No. 250, A. G. O. S. O. 123, Dept. of Arizona, Nov. 5, 1888.

Lieutenant-Colonel Basil Norris and Major Henry R. Tilton, Surgeons, are detailed as members of the Army Retiring Board appointed to meet at San Francisco, Cal., by War Department Order, dated Oct. 27, 1888, published in Special Orders No. 253, Oct. 30, 1888, from headquarters of the army. *vice* Colonel Elisha I. Baily, Surgeon, and Captain John J. Cochran, Assistant Surgeon, hereby relieved. S. O. 261, A. G. O., Nov. 8, 1888.

Assistant Surgeon A. F. Steigers is relieved from temporary duty at Angel Island, Cal., and will return to his proper station, Alcatraz Island, Cal. S. O. No. 80, Dept. of California, Nov. 9, 1888.

On the arrival of Acting Assistant Surgeon Steigers at Alcatraz Island, Cal., Acting Assistant Surgeon M. M. Walker will return to his station, the Presidio of San Francisco. S. O. No. 80, Dept. of California, Nov. 9, 1888.

Leave of absence for one month is hereby granted Captain Edward B. Moseley, Assistant Surgeon. S. O. No. 67, Div. Pacific, No. 12, 1888.

The leave of absence for one month granted Assistant Surgeon Charles Anderson by Paragraph 2, S. O. 125, C. S., Dept. of Arizona, is extended one month. S. O. No. 67, Div. Pacific, Nov 12, 1888.

The retirement from active service this date, by operation of law, of Colonel Elisha I. Baily, Surgeon, under the provisions of the Act of Congress approved June 30, 1882, is announced. Colonel Baily will repair to his home. S. O. 266, A. G. O., Nov. 14, 1888.

Lieutenant-Colonel Basil Norris, Surgeon, having reported at these headquarters, in compliance with Paragraph 14, S. O. 255, C. S., A. G. O., is announced as Medical Director of this Division and of the Department of California, *vice* Colonel Elisha I. Baily, Surgeon, retired from active service by operation of law. G. O. No. 8, Div. Pacific, Nov. 14, 1888.

Official List of Changes in the Medical Corps. U S. Navy (Pacific Station), from Oct. 20th to Nov. 20th, 1888.

P. A. Surgeon J. H. Hall, from U.S.S. "Monongahela," and ordered to his home.

P. A. Surgeon M. H. Crawford, from U.S.S. "Vandalia," and to U.S.S. "Monongahela," and also to perform duty at Marine Rendezvous, San Francisco, Cal.

Medical Inspector Adrian Hudson, in charge of Naval Hospital, Mare Island, promoted to Medical Director.

Surgeon G. W. Woods, Surgeon Navy Yard, Mare Island, promoted to Medical Inspector.

P. A. Surgeon Ernest Norfleet, detached from Naval Hospital, Mare Island, and to Flag-ship "Trenton," at Callao, Peru.

P. A. Surgeon H. B. Scott, to Naval Hospital, Mare Island, Cal.

Surgeon Dwight Dickinson, to Naval Hospital, Mare Island, Cal.

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